TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, [redacted]

No. [redacted]

THE UNITED STATES OF AMERICA, APPELLANT,

vs.

READING COMPANY, PHILADELPHIA AND READING RAILWAY COMPANY ET AL.

FILED DECEMBER 15, 1915.

No. [redacted]

READING COMPANY, PHILADELPHIA AND READING RAILWAY COMPANY ET AL., APPELLANTS,

vs.

THE UNITED STATES OF AMERICA.

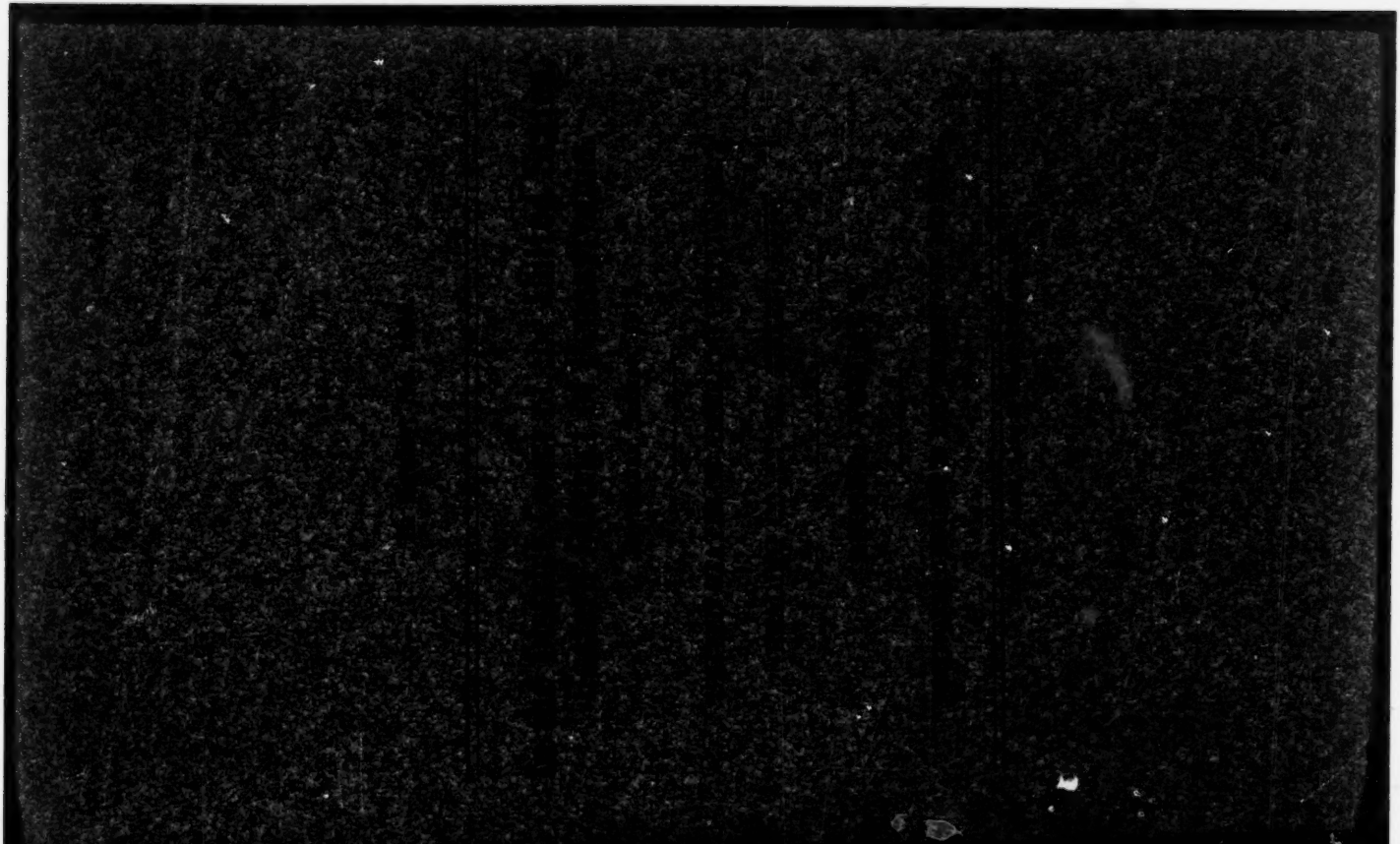
FILED JANUARY 4, 1916.

APPEALS FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF PENNSYLVANIA.

VOLUME IV.

PETITIONER'S EVIDENCE AND EXHIBITS IN REBUTTAL.

(25052)
(25071)



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In the District Court of the United States, Eastern District of Pennsylvania.

SEPTEMBER TERM, 1913. No. 1095.

IN EQUITY.

The United States of America, Petitioner,

vs.

Reading Company, Philadelphia & Reading Railway Company, The Philadelphia & Reading Coal & Iron Company, The Central Railroad Company of New Jersey, The Lehigh & Wilkes-Barre Coal Company, The Lehigh Coal & Navigation Company, Wilmington & Northern Railroad Company, Lehigh & Hudson River Railway Company, Lehigh & New England Railroad Company, George F. Baer, George F. Baker, Edward T. Stotesbury, Henry C. Frick, Peter A. B. Widener, Henry A. DuPont, Daniel Williard, Henry P. McKean, and Samuel Dickson, Defendants.

PETITIONER'S REBUTTAL EVIDENCE.

RETURN OF EXAMINER.

IN THE CIRCUIT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF PENNSYLVANIA.

The United States of America, Plaintiff,	Sept. Sessions, 1913.
vs.	No. 1095.
Reading Company and others, Defendants.	IN EQUITY.

I, Charles H. Guilbert, duly appointed by the Court as Examiner to take the testimony in the above-entitled cause, either within or without this district, and to report the same to the Court, do hereby certify that, beginning, pursuant to notice, on April 27, 1914, and continuing from time to time thereafter, I have taken or caused to be taken and recorded all the testimony of the witnesses produced and the exhibits offered in rebuttal on the part of the petitioner, on the examination in chief, as well as all the proceedings connected therewith, the signing of the testimony by the witnesses respectively being waived by counsel; and that the following is a complete and true record of all such testimony, exhibits, and proceedings, the same beginning with the proceedings before the Examiner on April 27, 1914, and ending with the proceedings on , and including all the exhibits offered by Petitioner.

In Witness Whereof, I have hereunto set my hand this 15th day of May, 1914.

C. H. GUILBERT,
Examiner.

Meeting held at No. 2 Rector Street, New York, 2419
Monday, April 27th, 1914, at 11 A. M.

Present—The Examiner; Messrs. Coudert and Kingsbury, Special Assistants to the United States Attorney, for the Government; Mr. Reynolds, for the defendants.

PETITIONER'S REBUTTAL EVIDENCE.

Supplementing the Extracts from the records of the Central Railroad of New Jersey which were put in evidence during the defendant's case, Government's counsel offer in evidence extract from the Report of the Commissioners named by the Legislature of the State of New Jersey in the Act incorporating the Somerville and Easton Railroad, passed February 26th, 1847, being from pages 13, 14 and 16 of such report, as follows:—

"COAL TRADE.

Should the company deem it expedient to go immediately into the transportation of coal, the profits would be greatly increased at once. It is confidently believed that the transportation of coal alone over this road, would pay 2420
a handsome dividend on its cost, without the aid of receipts from passengers, and other freights. Contracts can be made with responsible individuals for as much coal as can be transported on the road as soon as it is completed to Easton.

During the past year, the anthracite coal mined in the State of Pennsylvania, amounted to the very large sum of 2,312,514 tons. The consumers of coal in the City of New York, and eastwardly, ought no longer to be deprived of a direct communication with these coal regions.

The wants of the community demand some further facilities for the transportation of this necessary article for manufacturing and other purposes. No other route can compete in this trade with the Somerville and Easton Railroad, and it may with truth be said, *necessity* demands its immediate construction for the purpose. A trip may be made from Easton to Elizabeth Port and back in one day, and allowing the same time to go to and return from the mines at Mauch Chunk, the whole trip could be made in two days between Mauch Chunk and Elizabeth Port.

The annexed statistics, taken from a pamphlet published within six months past, setting forth the coal trade of Pennsylvania, and the importance to the City of New York, of opening to it a railroad communication, together with the map annexed, will exhibit in a very
2421 strong point of view, the value and advantage of this road as connected with this trade.

DISTANCES BY A CONTINUOUS LINE OF RAILROADS FROM DUNKIRK ON LAKE ERIE TO ELMIRA, AND THENCE THROUGH THE BITUMINOUS COAL FIELD, IRON REGION AND ANTHRACITE COAL FIELDS OF PENNSYLVANIA, TO THE CITY OF NEW YORK, WITH ESTIMATE OF COST FROM ELMIRA TO SEABOARD.

	Miles.	Estimate of Cost.
Dunkirk, on Lake Erie to Elmira, ¾ graded	192	
Elmira to Ralston, surveyed, &c.	49	$1,500,000
Ralston, in the bituminous coal field, in Williamsport, finished	26	500,000
Williamsport to Catawissa, as surveyed and estimated by E. Miller, into the iron region, surveyed	45	1,500,000
Catawissa to Beaver Meadow Railroad, through the anthracite coal fields, graded and bridged	48	1,200,000

Estimate to finish this 48 miles with heavy iron rails	....	$500,000
Beaver Meadow Railroad, now in daily use, part of which will form a link in this chain of improvements, say about	16	500,000
The Delaware, Lehigh, Schuylkill and Susquehanna Railroad, from Perryville to Easton, chartered in 1846, and estimated at	40	1,200,000
The Somerville Railroad, as surveyed by Moore, engineer, from Easton to Somerville, and estimated at (including running force)	36	1,600,000
Somerville to Elizabethtown Point, finished	26	500,000
	478	$9,000,000

ANTHRACITE COAL FIELD OF POTTSVILLE OR SCHUYLKILL COMPANY. 2422

RENTAL TO LANDED PROPRIETORS.

Twenty-five cents to 50 cents per ton, say	$0 30
Mining	1 00
Branch Railroads 10 miles, at three cents per mile	0 30
Reading Railroad to Philadelphia, 93 miles	1 60
Dumpage, &c	0 10
	$3 30
Freight, Philadelphia to New York	1 00
Actual cost exclusive of profit to operators, agencies, &c	$4 30

ANTHRACITE COAL FIELD CONNECTED BY PROPOSED LINE OF ROAD, VIZ.:

BEAVER, MEADOW, HAZLETON, AND LEHIGH REGION.

Mining, Rental, Branch Railroads and Dumpage, same as above	$1 70
Railroads direct to New York from coal region—main line 118 miles at 1½ cents per ton per mile as above	2 00
	$3 70

BEING 60 CENTS PER TON IN FAVOR OF THE PROPOSED DIRECT CONTINUOUS LINE OF RAILROADS FROM NEW YORK TO THE SAID COAL MINES. NO GRADE EASTWARDLY OVER 26 FEET PER MILE."

2423 Government's counsel also offer in evidence extracts from the report of 1873 of the Central Railroad of New Jersey from page 14 and pages 15 to 19, as follows:—

"COAL SUPPLY.

The efforts of the company have been steadily directed to securing a steady, reliable supply of coal from sources within their own control, independent entirely of other companies; and also to securing proper markets for the coal transported. In both, their success has been very gratifying, and every year is likely to place this their most important business on a firmer basis. It is easy to see also that the substitution of a smaller tonnage over the entire length of the roads will give a better return and at less expense than a larger tonnage over a part only of one road.

CONTRACT WITH DEL., LACK. AND WESTERN R. R. CO.

In the postscript of the last Annual Report, it was announced that an agreement had been entered into, on the 16th of March, for consolidating and uniting the interests of this Company and those of the Delaware, Lackawanna and Western R. R. Co., and the agreement was set out in full. Subsequently it was submitted to

the stockholders for approval, and with the greatest difficulty the assent of three-quarters in interest was obtained. From the first it was extremely unpopular, owing mainly to distrust of the motives and management 2424
of the Delaware, Lackawanna and Western R. R. Co. Unfortunately, this distrust was justified by experience.

At the very outset of the meetings of the Joint Committee dissensions began. The financial condition of the Delaware, Lackawanna and Western R. R. Co. was unexpectedly found to be such that an immediate issue of $3,000,000 convertible bonds by their Company was *demanded*, and had to be acceded to. After the bonds were all sold, and proceeds expended by them, that Company still showed a very large amount of liabilities. Without charging deception, it is safe to say that no such state of urgent indebtedness had been exhibited to our committee.

Nor was this all. In addition to the formal terms of the contract for merger, it is natural to suppose that the representatives of two such large interests would have some definite understanding, in advance, about the organization and general policy of the united companies. To suppose anything different is an insult to the common sense of all concerned. It was soon found, however, that the understanding on the subject of permanent organization either did not exist or was not to be recognized. A committee on organization was appointed with a prominent Lackawanna Director as Chairman. Finding the committee to be in favor of the organization proposed by the Central, he refused for six weeks, 2425
to call a formal meeting, and only then consented with the understanding that they should disagree and be discharged—which was done. In matters of policy there was the same lack of accord. Auction sales of coal were obnoxious to the trade generally and objected to by the Central. It was understood that this was to be an open question; on the contrary the sales went on without consultation, and accelerated the fall in prices. Instant steps were to have been taken to secure the removal of the broad-gauge rails from the two roads.

Instead, the only anxiety shown was to extend the broad-gauge over the Central from Elizabeth to Jersey City; and though resolutions were passed in the Committee looking to the substitution of the narrow-gauge, the change was practically deferred to some unknown period. Annual reports to stockholders and quarterly dividends were tolerated for the present, not adopted. In fact it was soon evident to the Central Directors that it was expected that Lackawanna principles should supersede those on which the Central had been so successfully managed. Having gone into the union, however, they were most earnestly desirous to carry it out. Repeated and persistent efforts were made to reconcile matters, but without any result. The only reply to warnings that the union would be dissolved was: 'You can't get out of it; you are fast.' After exhausting every effort for harmony, the Central Directors decided to
2426 avail themselves of organic lack of power, and other good grounds, for annulling the contract (which had never really gone into operation, with the exception of meetings of the Joint Committee), and the final rupture took place on the refusal of the Committee to allow the regular quarterly dividend to be made in October. Then it was that, for the first time it was discovered by our counsel that, owing to a failure to record the agreement, it was, by statute, invalid and of no effect. Though a technical ground, yet, as one from which there was no escape and which gave immediate relief, it was used in the litigation which followed, with the result of a prompt decision in the Company's favor on the above ground, though on a collateral issue. The question of a re-execution of the contract was then submitted to the stockholders, when 112,610 shares voted against it, while only 5,917 voted in its favor. Notice of the result was given to the Delaware, Lackawanna and Western Railroad Company, and the union finally ended so far as this Company was concerned. Litigation, however, continued, and the whole matter has been taken up to the Court of Final Appeals, where it will be heard and decided at as early a day as possible. After

the Central had withdrawn from the agreement by the above decisive vote, and while the matter was pending in the highest Court, an attempt was made by Act of the Legislature to validate the agreement, 'any law to 2427
the contrary notwithstanding.' The Act was forced through, without debate and without a hearing. In the opinion of our Counsel, 'the Legislature can pass no law that will stand; the very law must show the contract to have been void, and the stockholders at liberty to reject or adopt it; and, if three-quarters did not agree to it, the Legislature cannot make a valid contract for the Company.' In this opinion any lawyer will concur.

During this unpleasant controversy the Board have been united on every point. No variation of opinion has occurred, and each step taken has been fully sanctioned by the judgment of every director; and if they were unanimous in recommending the union, they were much more heartily so in their action for annulling it. It is just also to add, that it was the earnest desire of the chief executive officer of this Company to retire, hoping thus to end a part of the difficulties, but the Board objected unanimously to entertaining the proposal.

The damage to both companies from this controversy and litigation has been considerable. The market prices of the stocks have been materially affected, and money negotiations interfered with. Had matters gone on as originally expected, it is still thought that, even with the large floating debt of the Lackawanna, the consolidation would have been a good thing for this Company. As matters turned out, however, there was 2428
no course open to, or desirable for this Company, but the one pursued.

Thus ended in six months a contract meant to be perpetual. In December the contract of 1854, also meant at the time to be perpetual, but which had been openly and persistently violated by the Delaware, Lackawanna and Western Railroad Company, was formally annulled by this Company, and a final suit for heavy damages begun. The attempt at union has ended in a total division."

Government's counsel also offer in evidence from the Report of the Central Railroad of New Jersey for 1875, from pages 16 to 18, the following:—

"Review of Five Years.

The directors desire to call the attention of stockholders to the changes that have been made in the Company's position during the five years ending January 1st, 1875—what that position was, what it is, and what the results of these changes have been, on the gross and net revenue—that they may judge whether success, the usual test of merit, has followed those outlays.

It will be observed, by examining the annual reports, that in these five years the Company have risen from simple carriers of other people's coal, over a railway 75 miles long, with an equipment calculated for that dis-
2429 tance alone, into the owners or controllers of 180 miles of main road, with numerous branches, reaching from the seaboard to the finest centres of anthracite coal; the whole fully equipped with the best rolling stock, in the most perfect order; and also that they have become the owners of a controlling interest in an immense body of coal lands fully competent to supply them with transportation for centuries to come, independent of all other interests. The *safety* of their present position must be obvious to every one.

The coal tonnage of the Central Division has only increased from 1,556,052 tons to 2,383,869 tons; but the former amount was carried for comparatively short distances, being received, in about equal quantities, at Phillipsburg from the Lehigh Valley Railroad, and at Hampton Junction from the Delaware, Lackawanna and Western Railroad; while the latter amount has been mainly due under the complete control of the Company and carried over the entire length of the Lehigh and Susquehanna Division as well as of the Central Road.

The result is, that in five years the gross earnings have increased from $4,010,121 to $8,589,631, while the net earnings have risen from $1,367,958 to $4,449,029. This may fairly be styled a splendid issue. Much of the suc-

cess in keeping down expenses has been owing to the substitution of steel rails for iron, and fully as much to 2430
the careful maintenance of roadway and rolling stock in first-class condition. These two things begin now to tell forcibly on the annual net revenue.

The changes made in five years in the investments of the Company, as shown by a comparison of the balance sheet given in the report of January 1st, 1870, with that of the present report, are as follows:—

Capital Stock, increase	$5,000,000 00
Bonded Debt, increase	12,607,900 00
Bonds of other companies assumed	3,240,723 41
Undivided Profits expended	1,127,879 77
Total	$21,976,503 18

This increase in stock, bonds and liabilities is represented by the following increase in assets:—

Railroad—grading third and fourth tracks; laying tracks and sidings; Perth Amboy Branch; additional cost Newark Branch; excess of cost of steel rails over iron	$3,800,871 91
Expenditures at Jersey City	355,805 50
Port Johnson Coal Station	175,221 08
Station houses, shops, etc	113,400 20
New Engines	1,560,000 00
New passenger cars	415,000 00
New freight cars	725,000 00
New coal cars	3,105,000 00
Lehigh and Wilkes-Barre Coal Co. Stock	5,780,138 26
Lehigh and Wilkes-Barre Coal Co. Bonds	4,500,000 00
Accounts receivable—increase, less accounts payable	1,242,066 23
Total	$21,976,503 18

2431 While $4,449,298.69 have gone into the road, branches, buildings and other improvements attached to the freehold, the equipment has absorbed $6,005,000, being mainly for stocking the Lehigh & Susquehanna Division. The coal-land purchases have taken $5,780,-138.26 and $4,500,000 have been temporarily invested in the Coal Company Bonds. All these investments, whether in road, equipment or coal lands, are believed to be well and judiciously and profitably made.

By Order,

JOHN TAYLOR JOHNSTON,
President.

Office Central Railroad Company of New Jersey, February, 1875."

Government's counsel also offer in evidence, supplementing the extracts from the testimony of Charles E. Henderson in the record of the old suit read in evidence by the defendants, further extracts (pages 595 to 598, Volume 4), as follows:—

"Q. You made the freight rates upon anthracite coal for the Philadelphia and Reading Railway Company while you were with it? A. They were made under my direction.

Q. With whom did you consult about those rates? A. With the president of the company. They were comparatively few changes in them.

Q. What effect did the rates which were being observed
2432 by the railroads from the other anthracite districts have on the rates from the district served by the Philadelphia and Reading Railway? A. We could not maintain a higher rate than the other districts and treat our operators justly, and we could not take a lower rate than the other districts and treat our own companies justly, so that naturally all the rates came practically to the same basis. They were not in all cases exactly the same, but substantially they were the same.

Q. Why could you not charge a higher rate than was charged by the railroads reaching the other anthracite districts? A. Because our operators could not mine their coal cheaper than other operators could, and they would be at a disadvantage as compared with them.

Q. Why could you not charge a less rate than they did? A. Because we did not want to lose the money.

Q. Then the condition was such that, in a trade way, the competition existing between these various regions necessitated, you think, that the freight rates upon all the roads should be substantially the same? A. That would seem to be equitable to me.

Q. And was that the fact? A. That they were the same?

Q. No, was that the reason why it was necessary to make them the same, because of the competition existing between the coals moving from the various regions? A. There was a competition as to markets, as to prices of coal. If an operator in our region paid a higher rate, 2433 he could not naturally compete on an equality with another from another region who paid a lower rate.

Q. Is your line the shortest line from any anthracite coal region to tidewater at New York, or did you have the longest line? A. We had shorter lines than some and longer lines than others.

Q. What was the longest route over which you carried coal at the ordinary published price to tidewater at New York? What mine in your district was the farthest from tidewater? A. North Franklin Mine. It came around by the Reading Road to New York and was the farthest distant mine on our road.

Q. Which was the nearest mine to tidewater at New York? A. Passing over the Reading Road, the nearest mine was any one of those close to Pottsville.

By JUDGE CAMPBELL:

Q. St. Clair, for instance? A. Yes.

By MR. MCREYNOLDS:

Q. How far are the Pottsville mines from tidewater? A. You mean New York tidewater now?

Q. Yes. A. If I remember that distance, one hundred and seventy-six miles.

Q. How far is it to the North Franklin, the farthest mine from New York? A. About fifty miles further.

2434 Q. Which was the most expensive haul? A. From North Franklin.

Q. Was there any reason except distance why it was the most expensive haul? A. Yes, there were grades and planes and other reasons why it was a more expensive haul from North Franklin.

Q. Why did you haul coal from the North Franklin Mine at the same price that you hauled coals from the mines near Pottsville? A. That had been a practice that had been in effect almost from time immemorial, and was continued during my administration. It was supposed that, in that particular region, the collieries should all be put upon the same basis.

Q. Why was it supposed that they should be put upon the same basis? A. So as to put them on an equality as to power to do business.

Q. They were all in competition with each other, were they not, for selling their coal? A. Yes.

Q. And, in order to enable them to compete on equal terms, you thought it was proper to give them the same freight rate? A. That had been the practice for years.

Q. Did you make any difference in the rate which you gave to mines the output of which was more valuable than the mines which had a less valuable output? A. We did, in one instance. The Lykens Valley collieries had for a time a higher rate than the other collieries.

2435 Q. But you did away with that when? A. I think that was 1906.

Q. Before your freight rates were made, was your president accustomed to confer with the presidents of the other coal carrying roads? A. As to the rates?

Q. Yes. A. I do not think he did. I do not recall his doing it.

Q. You and he always had information about what those rates were to be before you made a change in your

schedule? A. We always got tariffs of other roads. All roads interchanged with each other.

Q. When changes were made, were they made by all the roads leading into the coal regions at the same time? A. If they found it out, they would be likely to do it. I do not think one would let another make a lower rate than he did, if he knew it.

Q. Why not? A. Because he would think the other fellow would get an advantage over him.

Q. How would he get an advantage over him? A. He would increase the volume of his business at the expense of the others.

Q. How would that come about, practically, I mean? A. By having an advantage of lesser cost.

Q. We are not railroad men, and we would like you to tell us how that in practice would work out. How would he increase his traffic by lowering his rate, at the 2436
expense of the other carrying roads? A. Take a simple illustration outside of coal ——

Q. No, let us stick to coal. A. Take wherever there is a competition as to business, the fellow that sells at a lower price for the same goods will get the greater volume of busines, I take it, or the fellow that has an advantage over another."

Government's counsel also offer in evidence, supplementing the extract from the testimony of George F. Baer in the old suit, further extracts therefrom (page 1205, Volume 5), as follows:—

"You generally vote the entire capital stock of the Philadelphia and Reading Railway Company at the annual meeting, do you not. A. The Central Trust Company of New York, which is the trustee in the mortgage, supplies the voting power, and they execute the proxy, which is generally executed to me; sometimes to somebody else, if it is not convenient for me."

Government's counsel also offer in evidence from the Agreed Statement of Facts as to the Reading Companies

in old record (pages 605, 606 and 607, Volume 2), the following:—

2437 "Concerning Reading Company, Philadelphia and Reading Railway Company, The Philadelphia and Reading Coal and Iron Company and Related Corporations.

It is agreed that it may be taken as proved on behalf of the United States, subject to objections as to relevancy or materiality or competency, but not as to the form or method of proof:—

1. That by virtue of an Act of the general assembly of Pennsylvania, approved April 4, 1833 (P. L., 1832–33, page 144), The Philadelphia and Reading Railroad Company was created a corporation to construct and operate a railroad: 'Beginning at or near the borough of Reading, in Berks County, and terminating at some suitable point in or near the city of Philadelphia,' that by Act of the general assembly of Pennsylvania, approved March 19, 1838 (P. L., 1837–38, page 148), The Philadelphia and Reading Railroad Company was authorized to extend its railroad to Pottsville, and by an Act approved April 12, 1864 (P. L., 1864, page 396), was authorized 'to make such lateral railroads or branches leading from the main line of their said railroad to such convenient place or points in either of the counties into or through which the said main line of their road may pass as the president and directors may deem advantageous and suited to promote the convenience of the inhabitants thereof
2438 and the interests of said company;' that The Philadelphia and Reading Railroad Company neither by its charter and supplements nor by any general law was authorized expressly or otherwise to acquire coal lands or mines or to operate such mines or to vend coal, though through the special charters of certain of the merged and leased lines forming part of The Philadelphia and Reading Railroad system authority was given to some of the companies to mine, transport, and vend coal. Their holdings of coal and other lands were, however, at or

after the mergers or leases, conveyed to The Philadelphia and Reading Coal and Iron Company or to other grantees.

2. That acting under the before-mentioned enactments and divers other authorizing mergers and leases. The Philadelphia and Reading Railroad Company, as owner or lessee, operated as a common carrier, until divested of its property as hereinafter stated, among other lines of railroad and branches, a system of railroads and branches penetrating certain portions of the so-called east Mahanoy district of the western middle coal field in Schuylkill County, Pennsylvania; also certain portions of the so-called west Mahanoy district of the western middle coal field in Schuylkill, Columbia, and Northumberland Counties, Pennsylvania; also certain portions of the so-called Shamokin district of the western middle coal field in Northumberland County, Pennsylvania; also certain portions of the so-called east Schuylkill district, of the so-called west Schuylkill district, and of the so-called Lor- 2439
berry district, of the southern coal field, all in said Schuylkill County; also certain portions of the so-called Lykens Valley district of the southern coal field in Schuylkill and Dauphin counties, Pennsylvania, and extending thence from some of the collieries located in the said portions of the said anthracite coal fields to Philadelphia and other points, with a system of branch and leased lines extending from Philadelphia and points near there across the eastern portion of the State of Pennsylvania and through New Jersey to Port Reading Junction in the last-named State, where it connected with The Port Reading Railroad Company, which owns a line of railroad about 20 miles in length extending from Port Reading Junction aforesaid to Port Reading, a point on the waters adjacent to and connected by water navigation with New York Harbor, whereby a line was formed for the carriage, besides other traffic, of anthracite coal from some of the mines in the said regions to the said port; the said portion of the said system of railroads, with some excep-

tions not material to be noted here being now operated by the Philadelphia and Reading Railway Company, the successor to The Philadelphia and Reading Railroad Company.

3. That Laurel Run Improvement Company was created a corporation by an Act of the general assembly of Pennsylvania, approved May 8, 1871, with power to
2440 purchase, sell, and transport coal, to mine and manufacture iron, to acquire from time to time such lands as it might deem expedient, and to subscribe for and purchase the lands or stock of any other incorporated company existing under the laws of Pennsylvania, it being also provided that it should be lawful for any railroad or mining company existing under the laws of Pennsylvania to subscribe for and purchase the stock or to purchase or guarantee the bonds of the said Laurel Run Improvement Company; that December 21, 1871, by due proceedings, the name of the company was changed to The Philadelphia and Reading Coal and Iron Company; that thereafter the said The Philadelphia and Reading Coal and Iron Company entered upon the business for which it was created, and in the course thereof acquired, from time to time, before 1896, anthracite coal producing lands amounting in round figures to about 83,700 acres and also the major portion of the shares of capital stock of the following companies owning anthracite coal and other lands, named:—

Preston Coal and Improvement Company,
Fulton Coal Company,
Locust Gap Improvement Company,
Tremont Coal Company,
Mammoth Vein Coal and Iron Company, and
Delaware Coal Company,

which lands and which interest in the shares of capital
2441 stock the said The Philadelphia and Reading Coal and

Iron Company continued to hold until divested as hereinafter stated.

That the anthracite coal mined and purchased by The Philadelphia and Reading Coal and Iron Company was by it shipped to Philadelphia, New York Harbor, and other markets over the railroads of The Philadelphia and Reading Railroad Company and its connections; that the said The Philadelphia and Reading Railroad Company, at or soon after the organization of The Philadelphia and Reading Coal and Iron Company, acquired substantially its entire capital stock of $8,000,000, which it continued to hold either directly or subject to certain pledges and liens until divested as hereinafter stated."

Government's counsel desire to have noted on the record as in evidence, with the privilege to any party to refer thereto, the following decisions and reports of the Interstate Commerce Commission.

These decisions and reports are not to be spread upon the record, as in the case of other reports previously put in evidence.

The Report in No. 4851, Waverly Oil Works Company *vs.* Pennsylvania Railroad Company *et al.* Submitted May 9th, 1913. Decided December 3d, 1913.

Reports in No. 5558 and No. 5558 (Sub-No. 1), *in re* Hughes Creek Coal Company *et al. vs.* Kanawha & 2442
Michigan Railway Company *et al.* Kelly's Creek Colliery Company *et al. vs.* Same. Submitted October 17th, 1913. Decided March 9th, 1914.

Report in Investigation and Suspension Docket No. 223. Lumber Rates from Texas, Louisiana, and Arkansas to Oklahoma and Missouri. Submitted November 11th, 1913. Decided November 17th, 1913.

(Adjourned until Monday, May 4th, 1914, at 11 o'clock A. M.).

Met pursuant to adjournment at No. 2 Rector Street, New York City, Monday, May 4th, 1914, at 11.00 A. M.

Present—The Examiner; Messrs. Coudert, Kingsbury and Gordon, for Government; Messrs. Reynolds, Heebner and Turner, for Defendants.

Mr. Reynolds notes of record that George F. Baer, one of the defendants, died on April 26th, 1914.

William Griffith, having been duly sworn, was examined as follows:—

By Mr. Coudert:

Q. Will you kindly give your name and address? A. William Griffith; I live in West Pittston, and my business office is in Scranton, Pennsylvania.

Q. What is your business or profession? A. Mining engineer and geologist.

Q. You have been a geologist for some years? A. Yes, sir.

Q. How many years? A. Since about 1883, along there. I started working on an engagement with the Geological Survey of Pennsylvania.

Q. You have been a practical mining engineer? A. Yes, sir.

Q. You have actually mined in coal mines? A. Yes, sir.

Q. What coal mines? A. Pancoast Coal Company, and, in the early part of my practice, I did general mining engineering work at Scranton, and surveyed mines, when called upon by different people, and I was president of a coal company at one time. I did not handle the business, of course, but we had a mine and operated it for a number of years. Then, in addition to that, you know, I have been continually engaged in doing consulting work and expert work of various kinds in and about the mines, and examining mining properties, &c., in a geological way.

Q. So that you are thoroughly familiar with the methods of practical mining? A. Yes, sir.

Q. Did you assist in the Pennsylvania State Geological Survey? A. Yes, sir.

Q. If so, in what capacity and under what circumstances? A. I started in as one of the assistants at Pottsville; was engaged there for a while doing work in both the Southern field and the Western Middle field, was then transferred to Hazleton and was engaged in work in the Hazleton region, Lehigh region, and after that was transferred to Bernice, and engaged in making a topographical survey of the Bernice coal field.

Q. You had charge of the work there? A. Yes. There was another man had charge of it before I did, but he left when I went there, and I took charge of the balance of the work. Then subsequently I had the immediate charge of the geological survey of all of the Northern coal field, north of Wilkes-Barre.

Q. Will you please describe carefully the work of the survey? A. That survey was done in a very complete and a very careful way, requiring the work of several engineer corps, comprising altogether from a dozen to twenty men, for several years. The maps were made on a large scale, and were very carefully compiled from the official surveys of the various coal corporations and mining companies that were operating in the field; and, where those surveys and maps and so on did not connect, the Survey made their own individual surveys to connect them up and to supply all omissions.

Q. Did they accumulate all the information extant and put it in record form? A. All the information that it was possible to secure, not only the topographical surveys, but geological surveys of the whole region, showing the outcrops, as far as possible, the dips of rocks, the inclinations of the beds; the actual mine maps themselves were placed on these maps, showing all the chambers, &c., so far as were able to obtain them, and, where we were not able to obtain them, we put on them the maps in the same condition that the companies had them.

Q. You obtained that data from the companies? A. Yes, sir.

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Q. Did you obtain pretty full data from the companies? A. Very full, and, where we did not obtain full data, it was written on the map, explaining it, that it was not full, and why. Then the surveys also included geological cross-sections of the coal measures at different points, at different intervals. They also included columnar sections, showing the number, thickness and distance apart of all the coal veins in different portions of the basin.

Q. Were you a member of the Pennsylvania Coal Waste Commission, in 1893? A. Yes, sir.

Q. What was your function in connection with that Commission? A. We were to make a report on the kind, quality and quantity of the waste of anthracite coal of the State of Pennsylvania, and, in doing that, we compiled statements of the various quantities and amounts and kinds of waste, the uses to which this waste might be put, methods that were then known for saving it, and methods that were in process of trying out. We made lists of all the patents that had been made for manufacturing various sorts of artificial fuels, made estimates of the probable total original content of the anthracite coal field—employed an engineer to make that—and from that we deduced the probable amount of coal that would be won.

Q. How many members were there of that Commission? A. There were three. Two of them died, and then two others were appointed in their places.

Q. Were you employed by anybody as an expert to make an estimate of anthracite mineable coal, which estimate appeared in the Bond Record of 1896? A. I was employed by the Bond Record Publishing Company, or at least by Harvey Fisk & Sons, to make an estimate of the shipable coal—not the mineable coal, but the amount that could be shipped out of the coal region—for the Bond Record Publishing Company.

Q. Was that estimate of shipable coal re-published in any other banking magazines or papers of any kind? A. They published copious extracts from it. I do not know that the detailed estimate has ever been re-published.

Q. Do you know whether anybody purchased a large number of copies of the article? A. Yes, sir; I was told so by the Publishing Company.

Q. Did J. P. Morgan & Company buy any? A. Yes, J. P. Morgan & Company bought a thousand copies to help the Reading System in its finances.

Q. Has that estimate, which you made in 1896, been used in any Government publications? Has it been published by the Government? A. It was used by the writer of the articles on anthracite coal, published by the United States Geological Survey, and extracts from it have been used from time to time.

Q. Was it used by the Anthracite Coal Strike Commission? A. Yes, the Anthracite Coal Strike Commission made use of it, and what you might call a revamping of that report, to bring it down to date, in connection with Mr. Smith's, was used recently by the Commissioner of Labor of the United States in compiling some labor statistics, or some work in connection with the anthracite coal.

MR. GORDON:—The witness refers to House Document No. 1442, Sixty-second Congress, third session, being a pamphlet entitled "Increase in Prices of Anthracite Coal following the Wage Agreement of May 20, 1912."

By MR. COUDERT:

Q. Are you connected with the United States Bureau of Mines? A. I have been called in as consulting engineer from occasion to occasion by them.

Q. Have you prepared articles for the proceedings of the International Congress of Applied Chemistry, at the request of the Director of the United States Bureau of Mining? A. Yes, sir, that is the article that I have reference to, that was used by the Commissioner of Labor.

Q. Have you been called upon by the Court to arbitrate tax assessments on coal lands, in the coal region? A. Yes, sir.

Q. What became of your award; how was it treated by the Court? Was it upheld by the Court, or modified? A. The local Court, I believe, increased some of the

findings and the matter was appealed eventually to the Supreme Court of the State, and our findings were upheld then by the Supreme Court.

Q. Have you at times testified as an expert, for any individuals or corporations? A. Yes, sir, occasionally.

Q. Have you been retained by any railroads and coal mining companies for that purpose? A. Yes, at various times.

Q. Have you ever been retained by the Philadelphia & Reading Coal & Iron Company? A. Yes, sir, the early part of this year; January and February of this year.

Q. To testify in what kind of a proceeding? A. Tax assessment cases in the anthracite coal fields.

Q. Did the Pennsylvania Survey, of which you have spoken, collect data from which it was possible to make a fairly accurate estimate of coal in the ground? A. Yes, sir. It is the only basis upon which anything like a reasonable estimate can be made.

Q. Without availing one's self of that data, a reasonable estimate could not be made? A. No, it would be simply a generalized estimate, would not be in any way a detailed one.

Q. When you made your estimate of 1896, did you endeavor to make it conservative or liberal? A. Conservative—very conservative. That was the basis on which I was employed, that the estimate should be conservative, based on the experience as to the art of mining and preparing and using coal at that time, making no allowances for improvements for the future.

Q. You made no allowance for improvements in the art of mining at all? A. I made some little, yes. The idea was to get a fair, conservative estimate of the tonnage which could be shipped from the coal fields, as a basis of revenue for the railroads.

Q. Has the percentage of recovery of anthracite increased very considerably during the years from 1895 to 1912? A. Yes, sir, very.

Q. About how much in percentage, for instance? A. It has increased from 50 to 100 per cent., and perhaps

in some cases more. The tax assessors in Luzerne and Lackawanna Counties estimate anywhere from 800 to 1400 tons per foot per acre now, as available production, and they also estimate the veins as thin as two feet as minable now.

Q. Which was not formerly the case? A. Oh, no. We stopped at about four feet, when this estimate was made, in the Northern coal field.

Q. And you did not base on any vein less than four feet? A. No.

Q. Do they now use sizes of coal smaller than they did heretofore? A. Yes, sir. At that time there were a great many culm piles all over the region that were just about beginning to be utilized, and since that they have re-worked most of these culm piles that are available and shipped the small sizes away to market; and, of the coal that has been mined since that, all of the small coal has been utilized and shipped to market. It increases the tonnage very greatly.

Q. Have they been recovering coal from the so-called culm banks? A. Yes, that is what I say.

Q. And that has greatly increased the output? A. Yes, sir.

Q. Has there been any saving in connection with the coal pillars, over the old practice? A. In many places they have been robbing pillars, that is to say, re-working the old mines, and that is one of the things that I left out of my estimate.

Q. The possibility of cutting down——A. Yes, the possibility of cutting down and re-working old mines, although a great deal of coal has been obtained from that source.

Q. Did you include in your estimate the amount set aside for local consumption? A. No, sir.

Q. Why did you leave that out? For any particular reason? A. Because it did not afford any tonnage for the railroads, and my estimate was for the railroad tonnage.

Q. So you did not leave out ten per cent., or anything

else, for local consumption? A. No, I dealt with the shipments only. In making my figures for the quantity of coal to be obtained, I dealt with shipments and cubical volume of the mines only.

Q. Do you know one A. D. Smith? A. A. D. W. Smith, yes, sir.

Q. Did he make an estimate? A. He did. He made an estimate, was employed to do it by this Coal Waste Commission.

Q. Is he an expert in coal matters, to your knowledge? A. Yes, sir. He was at that time just finishing his work as geologist in charge of the Geological Survey of the Southern coal field, then having headquarters at Pottsville.

Q. Have you critically studied his estimate? A. Yes, sir.

Q. Does that deal with production or with shipment? A. That dealt with production. It dealt primarily with the quantity of coal originally in the ground, total quantity, and from that he deduced his estimate of what proportion of it might be won.

Q. Did it include thinner veins than those that you have included? A. Yes, sir. I believe he included in the Northern field veins as thin as three feet, and in the Schuylkill region veins as thin as two and a half feet.

Q. And did he include the recovery from culm piles and mine pillars? A. Yes, he made estimates of those.

Q. Allowing for those factors that you have mentioned, how close do you find that his estimate and yours would come, about? A. Mine was a good deal less than his; I do not know just how close.

Q. Have you any memorandum of a comparison of the two, to show about how close the two would be? If you have any data, you may consult it. A. Yes, I have it right here. (Referring to memorandum.)

MR. REYNOLDS:—Just read the date of Mr. Smith's estimate, when you put it in.

MR. COUDERT:—1893, I should have said.

THE WITNESS:—Mr. Smith's estimate, made in 1893,

was a liberal estimate, including local consumption and coal beds in the Northern field two and a half feet thick.

By Mr. Reynolds:

Q. In the Northern field two and a half feet? A. Yes, two and a half feet thick through beds, and in the other fields two feet. I said three feet in the Northern field; two and a half, it is. I have here in this note two and a half feet thick in the Northern field, and two feet in the other. It amounted to 6,898,000,000 tons. My estimate, intentionally conservative, including railroad shipments only, excluding local consumption and including no beds thinner than four feet in the Northern field and three feet in the Schuylkill region, including culm piles and the possible production from mine pillars, was 5,073,786,750. That would be about something more than five-sevenths of Smith's estimate.

By Mr. Coudert:

Q. How close together in percentage would that bring the two estimates? What I want is this: suppose in your estimate you had included those factors which Mr. Smith put in and which you left out; how close together would the two estimates then come? They would be within 5 per cent. of each other, would they not? A. I could not tell that from this book. That would be given in the paper before the Chemical Congress.

Q. You did make a comparison of the two estimates, Smith's estimate and your estimate, in this communication to the International Congress of Applied Chemistry, did you not? A. Yes, sir.

Q. I show you a photographic copy, and ask you if that was the communication that you made, comparing the two sets of figures? A. Yes; this is a photograph of it. These papers show the estimates right here in figures.

Mr. Coudert offers in evidence the communication referred to, as follows:—

"Production, Reserve and Waste.

So thoroughly have the fields been exploited during the progress of the mining operations that the area and

extent of the various coal beds is known with considerable exactness, and careful estimates have been made of the original contents and future resources of the field. Two very elaborate and painstaking estimates employing widely differing methods of computation, are particularly worthy of mention, one of which was made in 1893, by Mr. A. D. W. Smith, of Wilkes-Barre, Penna., and the other in 1895, by Mr. William Griffith, of Scranton, Penna., both of whom, having been engaged upon the Geological Survey of the State in the Anthracite coal fields, possessed exhaustive information as to the geological conditions and the state of the art of mining, preparing and utilizing anthracite coal.

The estimate of Mr. Smith had reference particularly to the original content of the coal field before mining began, and from it as a foundation he computed the quantity of unmined coal remaining at that time. His estimate was published in full in the Report of the Pennsylvania Coal Waste Commission, in May, 1893, and was intended to be liberal according to the mining practice of that day. It included not only the shipments, but the coal burned at the mines, and consumed locally. It included in the Northern field, coal beds 2½ feet in thickness; that is to say, containing 2 feet of clean coal. And in the other fields, beds two feet thick; that is to say, containing 1.44 feet of clean coal and what might be saved from culm piles and mine pillars. Mr. Smith estimated the original content of the Pennsylvania fields before mining began, at 19,500,000,000 long tons, and the available reserve at 6,898,000,000 tons.

The estimate of Mr. Griffith, made in 1895, and published in the Bond Record, New York, was upon an entirely different basis of calculation and for another purpose, being intended as a conservative estimate to ascertain the quantity of export coal which the Anthracite Coal Fields of Pennsylvania might supply for tonnage to the various railroads, and it did not include the coal burned at the mines or consumed locally. Neither did it include any coal in beds less than four feet thick; that

is, three feet of clean coal in the Northern field; or three feet thick, that is, 2¼ feet of clean coal, in the other fields. It excluded all coal in culm piles and mine workings. His estimate of available reserve for export was 5,073,786,750 tons.

Re-drawing the latter estimate to conform to the more liberal lines of the former, and combining the two, to construct a new estimate having in view the recent progress toward conservation through modern improvements in the art of mining and using the coal, we have prepared the following tabulation, which we beiieve accords more closely with latest tendencies of mining practice.

Q. Is the Schuylkill region larger in area than both the other fields together? A. Yes, sir, I think it is. I will tell you in a moment.

Q. I show you something taken from the same document showing the percentages of area, both mathematically, in measurement, and in diagram, and ask you if you made those and if they are correct. A. Yes, sir.

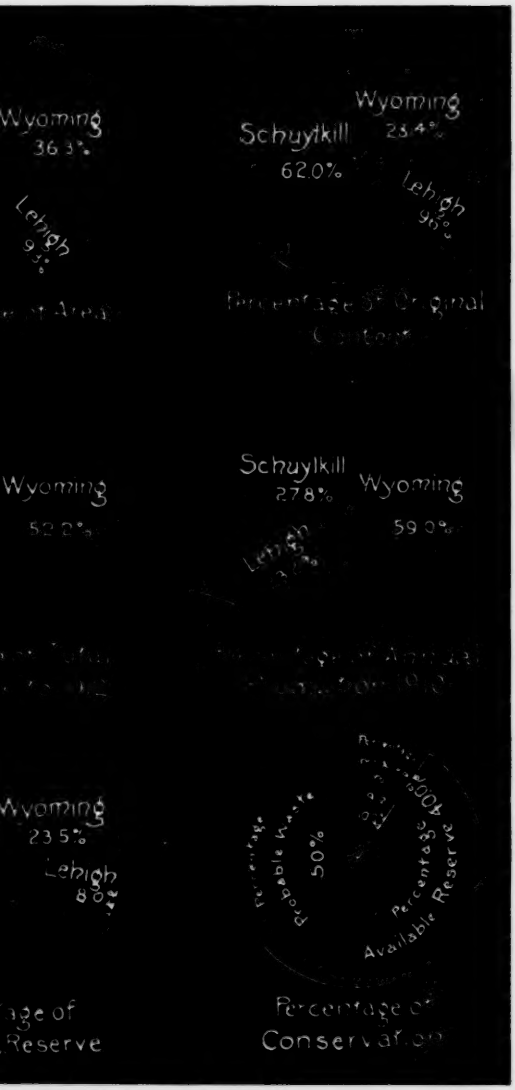
Mr. Coudert offers in evidence the diagrammatic percentage statement referred to, as follows:—

PENNSYLVANIA ESTIMATE OF ANTHRACITE PRODUCTION AND RESERVE, 1912.

Region.	Estimator.	Area, Sq. Miles.	Approximate Original Content. Long Tons.	Approximate Produced to Jan. 1, 1912.	Approximate ¼ Wasted and ¾ Left in Old Mines to Jan. 1, 1912.	Approximate Reserve Coal in Unmined Area.	Approximate Future Production Based on Saving of			Production, 1910. Long Tons.	Duration of Available Supply at Present Rate of Exhaustion.	Estimated Ultimate Waste of Mining.
							25% from Old Mines.	50% from New Mines.	Total Available.			
Wyoming and Lackawanna	Smith	176	5,700,000,000	.....	1,520,000,000	.....	.....	.....	.....	.....	.....	.....
	Griffith	176	5,500,000,000	.....	1,871,000,000	.....	.....	.....	.....	.....	.....	.....
	Av'ge	176	5,600,000,000	1,054,000,000	1,695,500,000	2,850,500,000	423,800,000	1,425,400,000	1,849,200,000	44,600,000	41 Yrs.	2,696,800,000
Lehigh	Smith	45	1,600,000,000	.....	476,000,000	.....	.....	.....	.....	.....	.....	.....
	Griffith	45	2,100,000,000	.....	569,000,000	.....	.....	.....	.....	.....	.....	.....
	Av'ge	45	1,850,000,000	312,000,000	523,500,000	523,500,000	130,800,000	502,400,000	633,200,000	10,000,000	63 "	904,800,000
Schuylkill and Mahanoy	Smith	263	12,200,000,000	.....	942,000,000	.....	.....	.....	.....	.....	.....	.....
	Griffith	263	11,600,000,000	.....	1,155,000,000	.....	.....	.....	.....	.....	.....	.....
	Av'ge	263	11,900,000,000	634,000,000	1,048,500,000	10,217,500,000	262,400,000	5,108,200,000	5,375,600,000	20,800,000	260 "	5,890,400,000
Total	Smith	484	19,500,000,000	.....	2,938,000,000	.....	.....	.....	.....	.....	.....	.....
	Griffith	484	19,200,000,000	.....	3,595,000,000	.....	.....	.....	.....	.....	.....	.....
	Av'ge	484	19,350,000,000	2,000,000,000	3,267,500,000	14,082,500,000	817,000,000	7,036,000,000	7,858,000,000	75,400,000	104 "	9,492,600,000

PERCENTAGES OF PRODUCTION AND RESERVE.

Region.	Percentage of Area.	Per Cent. of Original Content.	Percentage of Total Production to 1912.	Per Cent. of Annual Production.	Per Cent. of Available Reserve.	Per Cent. of Total Reserve.
Wyoming	36.3	28.4	52.2	59.0	23.5	25.0
Lehigh	9.3	9.6	15.6	13.2	8.0	8.5
Schuylkill	54.4	62.0	32.2	27.8	68.5	66.5


Wyoming
36.3%
Lehigh
9.4%
Wyoming
23.4%
Schuylkill
62.0%
Lehigh
9.0%
Percentage of Original Content
Wyoming
52.2%
Schuylkill
27.8%
Wyoming
59.0%
Wyoming
23.5%
Lehigh
8.2%
Probable Waste
50%
Percentage of Available Reserve
Percentage of Reserve
Percentage of Conservation

Q. Is there more coal per horizontal acre in a pitching than in a flat vein? A. Yes, sir, with the same thickness of coal.

Q. You might explain why that is. A. A horizontal acre of flat vein carries only an acre of coal, but a horizontal acre with a pitching vein may carry two acres of coal or three acres, depending on what the pitch is. If the vein is vertical, it would carry just as many times 209 feet as the vein is deep. I can explain this by a little diagram a good deal better. (Drawing and explaining diagram.) Suppose this upper design represented the width of a square acre: a horizontal vein underneath it would carry the same area of coal, but with a pitching vein the horizontal acre would carry more coal, because the bed area, or the area parallel to the pitch of the vein would be greater on account of the dip. For instance, a horizontal acre of a pitching vein, of a 45-degree pitch, would carry about one and a half times as much coal for the same thickness of vein, as if it was a flat vein.

Q. Is it the consensus of opinion, among scientific men who have studied this subject, that the Schuylkill region contains over half the total anthracite coal supply?

Objected to by Mr. Reynolds as manifestly calling for hearsay testimony. Question withdrawn.

Q. Is there any agreement, or consensus of opinion, among scientific men who have studied the question, as to the relative amounts of coal, of the total supply of coal, between the Schuylkill region and the other regions?

Objected to by Mr. Reynolds as calling for an answer manifestly hearsay, and as a question which the witness could not possibly answer.

Q. Do you know whether there is any such consensus or not? A. Really, I cannot answer the question as to others.

Q. Have you studied all the estimates? A. Yes. There have been two detailed estimates made, and they both agree on the point that it does, but as to the other people I do not know. They mostly draw from these two estimates, you know.

Q. As far as your study and knowledge of the coal situation goes, have there been any other detailed scientific estimates, based upon this Pennsylvania Geological Survey? A. Not that I know of. Mr. Harris made one when he was president of the Lehigh Coal & Navigation Company, but it was not a detailed one. It was just a general estimate.

Q. Do you know whether the veins of the Schuylkill region go deeper than in the other regions? A. They do, yes, sir.

Q. Does the conglomerate floor contain coal in the Schuylkill region? A. In some parts of it it does, yes, sir. In other parts they have not been able to find good, workable beds.

Q. Have the Wyoming region and the Lehigh region been mined, to your knowledge, more rapidly than the Schuylkill region? A. Yes, sir.

Q. And the percentages of total production furnished by each, up to 1912, are in the tables that you have already furnished? A. Yes, sir.

Q. Assuming the continuance of the present rate of mining, which fields would be exhausted first? A. The Northern field.

Q. You estimated 650 tons per foot-acre, did you, in your estimate? A. That is the factor that I used.

Q. Will you kindly tell us how you reached that? A. I took each field separately, determined the factor for each field separately, by estimating the cubical contents of all the mines in each field that had been mined up to the date of the Geological Survey maps, on which those mines were all shown. Knowing the thickness of veins, and the mined-over area, I could get the cubical contents of the excavation—of the hole in the ground, for instance. Then I took the published statistics, showing the total shipments that had been made from each region. Knowing the total shipments and the cubical contents of all of the mines, I could tell how many tons had been mined from each unit of volume, and in that way I arrived at this figure in the Northern coal field.

In reply to that question, I do not know but what I would like to read into the record from this book these three sheets:—

(The witness read the following extracts from his article in the Bond Record for March, 1896.)

"Wyoming Region.

Through the author's connection with the Pennsylvania Geological Survey, and careful study of the maps, as well as from his experience as mining engineer for a number of years, he has become fairly well informed as to the location of the outcrops of the various beds throughout the region and has been able to sketch them upon the maps with considerable accuracy, and measure off the number of acres of the various beds possessed by each property, and also the acreage of the mine workings. The results thus obtained are given in columns two and four respectively. Column No. 3 contains the approximate average thickness of the various beds, *inclusive of all the refuse material of the seams.* Multiply the items of column three by those of column four and we get the equivalent 'foot-acres' of No. 5, *i. e.*, 100 acres four feet thick is equivalent to 400 acres one foot thick, etc. The footing of column five gives us the total foot-acres mined (from the lands held by each interest on January 1, 1896), up to the date of the publication of the Geological Survey maps, and the grand total shows the foot-acres mined from the whole Northern field to that date. But anthracite statistics show us that the *total shipments out of this region up to that date* were a little more than 243,000,000 tons, which was the yield from the grand total of foot-acres mined. Therefore, according to the experience of the region to the above date (1887-8), the average yield per foot-acre (of total bed thickness, including refuse), was about 571 tons, and as the measured worked areas included all the thin spots, faulted and disturbed portions of the mines, this factor may be regarded as a foot-acre yield, which will make due allowance for all the various

faults, squeezes, boundary pillars and other troubles subsequently referred to.

Improvements in mining machinery and methods of preparation, as well as improvements in methods of utilizing the small sizes of anthracite, have progressed rapidly of late years, and an increasing market demand exists, so that much saving of small coal is now effected which formerly went to the waste pile; therefore, in our opinion, the above factor will be too low for the experience of recent years. We have concluded, therefore, that 600 tons per foot-acre would be more nearly correct for the years intervening since 1887, and for the future a still higher factor of 650 tons will, in our judgment, be conservative for the prospective yield from virgin lands.

Lehigh Region.

In preparing the following tabulated estimate for the Lehigh region we have followed precisely the same plan which we used for the Wyoming region, except that we have included the three feet beds as the minimum thickness minable on the prevailing dips instead of four feet, and as our method of estimating was explained at some length in our last article we need not repeat the explanation here. The basis there outlined was adopted because it made allowance for all sorts of troubles, faults and other causes of waste in ordinary underground mining.

In the Wyoming region the basin is comparatively shallow for the width, and the seams are therefore very flat, so that the length along the undulations of a coal bed from outcrop to outcrop across the basin does not usually much exceed the horizontal distance between the same points over the surface of the ground.

In the Lehigh and Schuylkill regions, however, the case is very different. The very irregular structure of the coal beds as they undulate in the very narrow and deep coal basins, causes the area of a given coal bed to greatly exceed the surface area of the land that overlies it. As a result of this, at first glance it would seem that

our method of estimating would of necessity have to be changed to suit the new conditions. This, however, is not so, and our method holds good under all conditions, for we are not trying to find the contents of the coal beds in the ground, but of the quantity of *coal that may be mined out and shipped* to market, and we are supposing that just as much coal may be mined in the future from a horizontal foot-acre* of a given bed as in the past, under the same conditions as to thickness or inclination of the measures, whether steeply pitching or flat. But we are reasonably sure that in these respects the coal beds to be mined in the future in the Lehigh and Schuylkill regions will average about the same as those that have been worked for the past fifty or sixty years. We may, therefore, safely continue our estimate as at first planned, basing it upon the experience of these past years as to horizontal foot-acre yield (of course, other things being equal, this yield would vary with the inclination of the bed, *i. e.*, the steeper pitch, the greater yield), and making due allowance for the increased yield due to recent or prospective improvements in methods of mining and preparing the coal, etc.

The total tonnage shipped from the Lehigh region up to the date of the Geological Survey maps (1884-'88) was about 106,256,161 tons, according to the published statistics; and the total horizontal foot-acres mined to the same date was 220,066, as we find from the footings of column 5 of our table. It would appear, therefore, that about 483 tons per horizontal foot-acre was the average yield of the region up to that date.

We would note from the above that the past yield per foot-acre in thick seams of pitching coal is appreciably less than the more favorable yield obtained in mining thinner veins where the measures are nearly level. This will readily appear by comparing the above yield of 483 tons per foot-acre in the Lehigh region with

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*A foot-acre is an acre of coal one foot thick, *i. e.*, 5 acres of a bed 5 feet thick would be 25 foot-acres.

the 571 tons realized in the Wyoming region, as shown in our last article.

Previous to 1888 the experience of the Lehigh region proves that about 20% of the contents of the veins were shipped to market, and the remainder either left in the ground or wasted in preparation. In our estimate we have allowed 600 tons per foot-acre as the probable yield from 1888 to January 1, 1896. For the reason as stated in previous articles the improvements in the preparation of coal have been marked, and a greater yield is now obtained than formerly, in addition some of the coal beds have been more or less re-worked during the period, in consideration of which we have concluded to allow the liberal tonnage of 650 tons per foot-acre for the future. We regard this as a full allowance for future yield in the Hazleton district (except where stripping is feasible), but much coal is now being won by re-mining or robbing the thick beds, when not too deep, and we think it not at all improbable that this yield will be obtained, particularly as the district is being rapidly exhausted, and efforts will be made to re-work old mines at every available point where profitable tonnage can be obtained and the transportation companies will doubtless operate some of these mines at a loss, if necessary, for the sake of securing the tonnage.

Schuylkill Region.

In preparing the estimate of future tonnage for the Mahanoy-Shamokin region, we have proceeded in precisely the same manner as previously explained in the case of the Wyoming and Lehigh regions, using, as in the latter, three feet as the minimum mineable thickness. We find that the foot-acres worked in Schuylkill region prior to the date of the geological maps were:

Mahanoy-Shamokin field	185,780
Pottsville region	142,590
Total	328,370

And up to the same date, the statistics of shipments from the Schuylkill region show an aggregate tonnage of 208,843,332 tons, or 636 tons per horizontal foot-acre of coal beds worked. This yield is much larger than was found to be the experience in the Wyoming and Lehigh regions, which is probably accounted for, partially, by the fact that nearly all the workings are on very steeply pitching seams from which a larger yield per horizontal foot-acre must be expected than from flatter-lying beds of the same thickness.

In the Lehigh region the beds are also steeply inclined, but the basins are not so deep, and there is a larger proportion of less steeply inclined coal. The beds of the Lehigh region that have been worked in the past will probably average much thicker than the average worked in the Schuylkill region, and on this account could not for reasons previously explained, produce as large a foot-acre yield.

While from the above facts we should expect a larger yield per foot-acre in the Schuylkill region, there are other conditions which lead to the conclusion that the yield found by us above is perhaps larger than the actual facts would warrant.

During the earlier years of the anthracite industry, the mining was very active in this field, and particularly in the Southern or Pottsville district, the major part of the mining was conducted on the cheap plan by small operators, and many mines were opened in all parts of the region. The statistics of shipments in this field of course include the tonnage thus produced, but no complete or proper surveys were made, nor records kept of many of the mine workings, mine surveys were not required by law, and many of the operators looked upon them as an unnecessary and useless expense. The geological survey sheets show the location and extent of the old mine workings as fully as the imperfect maps and other information attainable would admit. And it is from these maps that our data as to foot-acreage worked is obtained. It is probable, however, that there are mine

workings of considerable extent, long abandoned and closed, of which absolutely no records or maps are in existence, and no reliable information obtainable by the survey, while in many other cases the old maps do not show the full extent of the area worked.

It is reasonable to suppose, therefore, that there is a considerable area of old workings which we could not measure which would have appreciably increased the total of foot-acres mined, and consequently reduced the foot-acre yield.

In consequence of this we have not very much increased the yield used for estimating the future tonnage in our tabulated estimate of the Western Middle field, presented herewith, having adopted 640 tons as the factor for obtaining column 6 and 650 tons for column 10.

In using this yield of 650 tons per horizontal foot-acre for the future in this basin, we have given considerable weight to the fact that the past tonnage has all been obtained from the shallow parts of the basin and along the outcrops, where it could be most cheaply mined, and the maximum yield obtained, leaving the great portion of the tonnage of the future to be won from the deeper parts of the basins, requiring larger consumption of coal at the collieries for steam power to hoist the coal and pump increasing quantities of water from mines, which will be continually growing deeper with time. In addition to this the question of troubles, squeezes, etc., to which previous reference has been made, and many other items of expense which not only increase the cost but decrease the yield, are to be considered in the mining of the deeper parts of the basin. In view of which we consider the above yield per acre ample for the future of this basin, notwithstanding the improvements in machinery and methods of preparation, the saving of the smaller sizes, and the prospective stripping in certain portions of the region."

By that method I avoided any question of specific gravities, or anything of that kind. For example, if you

dig a cellar hole here, you know the size of the hole and you know the weight of the dirt that comes out of it, and you can tell how many tons of dirt come from each cubic yard. By that method I estimated the average experience for the past years for the Northern coal field, up to the time of the publication of the Geological Survey. Then from the mine inspectors' reports I found how much had been exhausted since that time, up to the date of my estimate. Combining the two, and making the necessary allowances for mined-out space between the date of the survey and the time of the estimate, in proportion to the amount of mining for those different intervals, we were able to tell the number of tons of coal that were actually secured during that time from each foot-acre, each horizontal foot-acre. That same process was used in connection with the Lehigh region and another estimate was made with reference to the Schuylkill region. The results in each case were something less than 650 tons to the foot-acre; but, in view of the improvements that were then being made and would inevitably continue in the future, they were increased 50 or 60 tons a foot-acre, to bring them up so as to, in a measure, compensate for the increased, improved production.

Q. Do you know whether the Reading Coal Company's own engineers recently testified to as much as 800 tons recovery? A. Yes, sir, they did.

Q. Where was that? A. At Sunbury, in February; the Pennsylvania engineers also.

By Mr. Reynolds:

Q. How many tons was that? A. About 800 tons, ultimate recovery.

Q. Sent to market? A. Yes. I understand, Mr. Reynolds, they testified to a certain number of tons on first mining, and ultimately they got up to 800.

By Mr. Coudert:

Q. How much refuse do coal veins normally have? A. The interstratified refuse averages from 20 to 23 per cent., along there.

Q. What would you say of a vein such as Mr. Rich-

ards described in his testimony, containing 80 per cent. of refuse? A. That would not be a coal vein; that would be a refuse vein. It would not be minable at all, unless it was so thick that there would be bands of coal in it that were thick enough to mine by themselves. If the vein was 80 feet thick and contained 80 per cent. of refuse, and you would have a vein of coal in there in one band 10 feet thick, that would be a minable vein but an ordinary vein five feet thick, containing 80 per cent. of refuse, would not be a coal vein.

By Mr. Reynolds:

Q. It all depends on the particular condition? A. It depends on the thickness of the coal itself.

Q. And is all referable to the particular vein he was talking about? A. Yes.

By Mr. Coudert:

Q. How would you have treated such a vein as Mr. Richards described; as a ten-foot vein or an eighty-foot vein? A. A ten-foot vein.

Q. Is it easier or harder to mine a three-foot pitching vein than a three-foot flat vein? A. It is easier to mine the pitching vein.

Q. Why is that? A. In a pitching vein there is room for a man to stand upright, if it pitches steeply enough. With a three-foot horizontal vein a man cannot stand up. You cannot get mules and cars into it. You have got to blast down the rock from the top, or dig the rock up from the bottom, to make it high enough to get your mules and cars and transportation facilities in there, to get the coal out; but in a pitching vein, a forty-five-degree pitch, a man can stand upright and mine his coal without any difficulty, does not have to dig down the roof or the bottom.

Q. Did the tax assessors in the Wyoming region count everything down to two-feet veins? A. Yes, sir; in the Northern field, the Wyoming region, they counted down to two feet in the upper end, and I think about two and one-half feet in the Luzerne County end of it.

Q. And Mr. Smith made those same additions in his esti-

mate, and also counted the two-feet veins? A. He made a difference between the flat veins of the Northern field and the pitching veins of the Southern region, in the same way, yes.

Cross examination.

By Mr. Reynolds:

Q. As a matter of fact, the Delaware and Hudson, to your knowledge, are now mining a large number of twenty-seven inch veins, are they not, in the Lackawanna end of the Wyoming field? A. I presume they are mining some. I do not know how many.

Q. You know they are mining some? A. I know the Delaware, Lackawanna and Western are mining in one place twenty inches.

Q. Less than two feet? A. Yes, but in that case it is mined, as those thin veins usually are, in connection with thicker veins in the same mine, you know. In the case of the thin vein that the Lackawanna are mining, for instance, they take down a good deal of rock and then they transport it to another part of the mine and pile it up in the chambers, and then they mine the pillars out in the same vein, so that they mine it in combination. The mining of the twenty-inch vein enables them to get a large amount of material for filling up the thick vein, and they get the pillars out, save them, you see.

Q. And they mine four inches less than a two foot vein? A. In that case they do, yes.

Q. Where else in the Wyoming region, that you know of, are they mining two-feet veins? A. I do not know of any other place.

Q. Do you not know that the Elk Hill people are mining a twenty-seven-inch vein? A. No. They may be; but I do not know about it.

Q. What properties in the Wyoming region are you intimately familiar with? A. At present I am not familiar with any, except right at Scranton. I have been through the Scranton mines recently, in connection with making a report of the condition of caving under that city, for the

city authorities, but recently I have not been in many other anthracite mines, except one or two down in the Schuylkill region.

Q. Have you been in the Jermyn properties lately? A. Not lately, no.

Q. How lately? A. I made a report for the Jermyns, I guess fifteen years ago.

Q. How thin were they mining in the Jermyn then? A. At that time I do not think they were mining anything under three and a half feet along there; but they had some other veins there that were thinner, that were not estimated on.

Q. Do you not know, from litigation up there in Scranton, that they are mining very much thinner veins there now? A. In some places they are, yes, but I do not keep much track of the litigation there.

Q. Going back to your report on coal mine support in the city of Scranton, that sort of thing has a very serious effect on the amount of coal minable out of a property, does it not, the obligation to support the surface? A. It does, yes.

Q. And that factor was not considered in your process of arriving at a flat 650 tons to market out of every foot-acre, was it? A. Oh, yes, they had mined the veins under the city before, the 50 years preceding, just the same as they have for twenty years since, and it represented the absolute experience of the whole region for fifty years past, whether or not it was under the city, and whether or not they mined the pillars. It was an average figure, was not a constant figure—would not apply to any particular mine. Some mines would not get that much. Some would get a good deal more. If, for instance, you would have a number of poor mines and they did not get that much, say, that would not affect the average value, because there were a great many other good mines which did get it, and got a great deal more. It included, of course, all the troubles and faults, thin coal, thick coal, squeezed coal—coal of all kinds that came out of the ground was included and covered and allowed for by that estimate, because out

of all that conglomerate mass of coal there were just so many tons of coal sent to market, and those were the ones I used in dividing up.

Q. There has been a great deal of coal mined from those properties in Scranton, has there not? They are pretty well mined out, you said? A. No; they could mine a whole lot more coal there.

Q. If they were permitted to take out the pillars, for instance? A. And there is a whole lot of unmined coal under the city of Scranton, a whole lot of it; but it has been rather extensively mined there, all the same.

Q. From Carbondale to Pittston is what we call locally the mined out portion of the Wyoming region, is it not? A. Yes. The great bulk of the coal left there is in the lower end of the region, the Luzerne County end.

Q. And, relatively speaking, the mining operations under the cities of Scranton and Wilkes-Barre are in the most advanced stage of any group of operations you could pick out in the Wyoming field, are they not? A. Where are those located that you speak of?

Q. In and around Scranton and in and around Wilkes-Barre? A. Well, no, I think Carbondale is about as advanced as any.

Q. Then Carbondale, Scranton and Wilkes-Barre? A. Yes—that includes the whole field. The least mined region is the deep measure between Wilkes-Barre and Nanticoke.

Q. I was coming to that. Those are stated in about the right order, are they not, Carbondale, Scranton and Wilkes-Barre? A. Yes.

Q. Carbondale is the most mined out, Scranton next, and immediately under Wilkes-Barre next, and then in the field between Wilkes-Barre and Nanticoke there is quite a little virgin coal, is there not? A. Yes, sir.

Q. As I understood you, your preliminary study of this general situation led you to first figure from a statistical history of the shipments from each region, and by that to derive a factor of minable coal to market out of each acre in each region; that is correct, is it not? A. Shipable coal

to market, yes. I make a distinction between minable coal and shipable coal.

Q. I know you do. Minable coal to market, I said; that is the same thing? A. Yes.

Q. As a matter of fact, your historical, statistical study brought you out with 483 tons per foot-acre in the Schuylkill region and about 100 more tons per foot-acre in the Wyoming region, did it not? A. No. 483 tons per foot-acre in the Lehigh region and 571 in the Wyoming region.

Q. Your 483 tons per foot-acre, you found not only in the Lehigh region but in the Schuylkill region, did you not? A. In the Schuylkill region, 636 tons to the foot-acre.

Q. Let us see if we have it straight. 636 tons per foot-acre in the Schuylkill region? A. That was the experience for the fifty-odd years beforehand, fifty or sixty years beforehand, yes.

Q. And 483 tons for the Lehigh? A. Yes, and 571 for the Wyoming.

Q. In spite of what you found historically, you just eliminated all experience in respect to those equations, and made them all 650, as I understand your table? A. Yes; but I did it separately, and for different reasons in each case.

Q. The fact was, however, that by a curious coincidence you came out 650 tons from all three regions? A. Yes, sir.

Q. How long did you operate the Pancoast Coal Company? A. I never operated it. I was engineer for a while.

Q. How long? A. Several years; I do not remember now.

Q. About how long ago was that? A. Fifteen or twenty years ago. I sold my instruments and quit this local engineering fifteen or twenty years ago, and have not been doing any actual surveying since that. If I wanted any of that done, I would hire some of the engineers around there to do it for me.

Q. You have not been in practical charge of any of the anthracite operations? A. Oh, no, I never was. I was president of a company once, but I was not in charge. I was kind of a figurehead in that respect.

Q. Your severance of your practical connection with those matters was just about coincident with your writing this article in 1896, was it, as a matter of time? A. No. My practical severance was later than 1895 a good deal. You see, I was president of a coal company down to eight or nine years ago, I guess. I do not know the exact time.

Q. Did the work you have been doing in the Pottsville field and the Mahanoy basin involve a practical contact with the coal workings at the present time? A. It was an investigation of them. You mean the tax assessment business up there?

Q. No, I mean anything you have done. A. That is all I have done in connection with that, you know, lately.

Q. Have you had much contact with the Southern field in the last twenty years? A. Quite considerable, but not inside the mines.

Q. Not in the inner workings of any of those mines? A. No, except where I have made an occasional report, gone in and examined a mine to make a report on it, that is all.

Q. In what period was it that you were located at Pottsville, as an assistant engineer? A. About 1883, I think, along there.

Q. And that was for a few months, was it not, and then you were moved up to ——. A. Hazleton; yes, it was for several months, five or six months, somewhere along there.

Q. When you made that geological survey, back in the time you were on the Survey, how full and satisfactory were the data and mine maps which you received from the independent operators? A. It was just as full as they had it themselves.

Q. How full was that? A. They permitted us to go into their offices and copy all the maps that they had. The mine maps were all copied, traced from the originals, and

they gave us records of bore holes, we got permission to go into the mines, and we measured the shafts and measured the things that we thought were necessary to have, that they did not have, and in that way we compiled all the information we could get, of every sort, in connection with the geology of the coal.

Q. Did you find that the independents had the systematic methods of preparing mine maps and data, upon which you could compute coal contents, etc., that the larger coal companies had? A. Yes; some of them did at that time. During the very early ages of the coal mining, as it is explained in these reports, some of the data were not so complete, and these are all considered; all those things are considered, if you will read these items in connection with that 650 tons. They are all considered and mentioned here. For instance, years ago, when we were at the start of coal mining, they did not think it was worth while to survey coal mines at all, and then, when they began to survey them, they did it in a very incomplete, careless way. As the business grew and time went on, the importance of making better maps was impressed upon the mine owners, for their own convenience and use, and then later it was required by the State laws. So that some of the old, old mine maps are incomplete and there may be mines there that were never mapped at all. So those things are considered in making this 650 tons, and are specified here; and it is also probable that the statistics are incomplete. There are more tons shipped to market than the statistics show, for instance. In the early ages they perhaps did not keep so complete statistics as they did later.

Q. What data did you have, from what independent operators, as the basis for your computation? A. I do not understand.

(Question read.)

A. You mean for this computation?

Q. Yes. A. I took all my data from the Geological Survey maps. I did not go to any independent operators for this thing. I went to the Geological Survey maps and the mine inspectors' reports.

Q. Then how do you know just what completeness there was to the information as to the independent operators? A. I had everything that the independent operators had.

Q. But you do not know what they had? A. Everything that they gave to the Geological Survey.

Q. But you do not know what that was? A. It is shown on the maps. Everywhere the Geological Survey had all the maps that were in existence except in one or two cases, and there they were not given for a particular reason, and that was specified, you know. But it was a very simple matter to estimate the tonnage from any individual operator from the mine inspectors' reports, because the shipments of the individuals, after the time of the Geological Survey, were all in the mine inspectors' reports.

Q. I understand the shipments were, but I am only asking about the mine maps. A. All of the mine maps, just as complete as the independents, or the railroad companies, or anybody that mined coal in the anthracite field possessed them, were placed on the Geological Survey maps, except as I stated, and, in those few exceptions, it was written right across the face of the map that they were exceptions.

Q. Is it not a matter of fact that the independents did not have the systematic methods of making mine maps, &c., that were in vogue with the railway coal company properties? A. There may have been some of that kind. The up-to-date independents were up-to-date. Those who were a little careless, were not. As a rule, the coal companies have been the most advanced in all of these matters—that is, the big corporations. They have the most up-to-date methods all the way through, in connection with the coal mining.

Q. It is a fact that these coal companies connected with the railroads have generally adopted more scientific and systematic methods of accounting and have reduced the waste, is it not? A. Yes, sir, there is no question about that.

Q. Was it your observation also that the short tenure led to small operating units, careless methods and extravagant waste of the natural resources, while long tenure promoted large operating units and scientific methods, resulting in the greatest possible conservation? A. Yes, sir, that

is unquestionably true. I think that is an economic law, universal.

By Mr. Coudert:

Q. You are speaking now in a general, theoretical way? A. Yes, sir, and a practical way, as far as the anthracite coal regions are concerned.

By Mr. Reynolds:

Q. You are speaking of the anthracite coal regions and your observations? A. Yes; there is no doubt about that at all.

Q. How much special preparation did you give to testifying to-day? A. About three days.

Q. I understand that in your exhibit, which was filed in the old case, you did not assume that any coal would be mined in the Wyoming region, except in those beds of at least four feet in thickness. This is your own exhibit (indicating). Just look in the first left hand column and refresh your recollection. A. That is something that has been introduced in this case?

Q. No, you put that in four or five years ago in the old case, did you not? A. I do not know that I put it in. I suppose somebody else put it in for me, without my knowledge.

Q. You were on the stand when it was put in? A. Yes, I was on the stand once before.

Q. And you were examined in respect to it. I direct your attention to the column on the left of the page, for the Wyoming region. My question is, did you include in the shipable coal in the Wyoming region any coal less than four feet in thickness? A. I did not intend to. I limited my estimate of the Wyoming region down as low as four feet veins, and did not expect to take anything lower than that.

Q. There has been a great deal of pillar robbing in the Wyoming region, has there not? A. There has lately, yes, and some in the earlier days.

Q. The Wyoming Valley is shaped like a large flat boat, is it not, roughly? A. Yes, shallow canoe.

Q. And the coal measures lie, generally speaking, hori-

zontally? A. Yes, except at the margins of the basin, and there they are not very steep dips, only slight.

Q. The only place they are not horizontal is practically on the outcrops? A. On the outcrops, yes, sir.

Q. About how much of a staff have you used in preparing yourself for testifying to-day, during the last three days, or these three days? A. Myself, alone.

Q. Your testimony, then, practically goes back for its value to your Bond Record article and your communication to the Congress of Chemistry, does it not? A. Largely, and something besides that. I have this testimony here. I have investigated this. (Referring to record in present case.)

Q. That is, you read over Mr. Huber's and Mr. Richards' testimony? A. Yes.

Q. You followed Mr. Smith, of whom you spoke, in your estimate, did you not—in the matter of time, I mean? A. I was several years afterward, yes.

Q. You were about three years later in making your estimate, were you not? A. Yes.

Q. And, like Mr. Smith, you differentiated between the Northern and Southern field, in your basic proposition that thinner veins could be mined in the Southern than in the Northern field? A. Yes, sir.

Q. Do you know of any vein of coal in any operation in any part of the entire Southern field that is mined down to twenty inches? A. No.

Q. I note that you introduced, as part of your testimony, a table from your communication to the Congress of Applied Chemistry, giving percentages of production and reserve for the various regions. From the photograph I note that that is taken from the top of page 93 of Volume XXIV of the original communications of the Eighth International Congress of Applied Chemistry. That is correct, is it not? A. Yes, sir.

Q. You gave that paper at the meeting of September, 1912, as of the end of the calendar year 1911, did you not? A. Yes, sir.

Q. Just below the table which is put in, you made this

statement, did you not: "It is impossible to predict, with any approach to accuracy, the duration of the life of the supply of anthracite coal in the United States, because there are so many unknown quantities entering into the proposition. It would only be remotely approximate to divide the annual rate of exhaustion into the available supply, as we have above tabulated it?" A. Yes.

Q. You spoke, in general, of the conservative character of your estimate. You endeavored, did you not, at the time you made your estimate for the Bond Record, to make that same conservative estimate of the contents of the Dauphin basin? A. Yes.

Q. And of the contents of the Lykens Valley veins? A. Yes, sir.

Q. And of the Buck Mountain vein? A. Yes, sir.

Q. And of the various Red Ash veins? A. Yes, sir, in a general way.

Q. You held yourself to the same conservative tendency on those estimates that you did over the remaining 485 square miles of the coal region, did you not? A. Yes, sir.

Q. Between 1896, when you made your prognosis for the Bond Record, and 1912, when you made your second prophecy to the Chemical Society, there had been roughly 18 years of observation of conditions, had there not? A. Yes.

Q. In your table 157 you gave the mines of the Central Railroad of New Jersey a life of 163 years? A. Yes.

Q. And under tonnage owned, you gave them 4709 acres in the Southern, or Pottsville field? A. Yes, surface acres.

Q. Where is that property? A. The Alliance Company lands; that is one company that is subsidiary to the Central Railroad of New Jersey, and it seems to me they owned the Kaska William tract, and several others that were down there at that time.

Q. In the Lehigh region you give them an acreage of 9335 acres? A. Yes.

Q. What lands were those? A. Those were the Lehigh and Wilkes-Barre lands up there. You see, at that time

the Lehigh and Wilkes-Barre and the Lehigh Coal and Navigation Company were subsidiaries to the Central Railroad of New Jersey.

Q. In 1896? A. 1896, yes.

Q. The Lehigh Coal and Navigation Company lands are in there also? A. Yes, sir, the Lehigh Coal and Navigation Company; all who shipped over the Central Railroad of New Jersey at that time are in here.

Q. That is, the Lehigh Coal and Navigation Company —— A. The Lehigh and Wilkes-Barre, Lehigh Coal and Navigation Company, and all of the subsidiary companies, and all that they owned or controlled in any way, and also all of the individual operators who shipped their coal over those roads.

Q. I understand, but you will find that your individual operators you have separated in the line below. A. Yes; by contract, yes.

Q. But I am right, am I not, that in the 9335 acres which you put in the Lehigh region and the 4709 acres of the Schuylkill region, as tonnage owned by the Central Railroad Company of New Jersey, you include all the tonnage of the Lehigh Coal and Navigation Company, the Alliance Coal Company and the Lehigh and Wilkes-Barre Coal Company? A. Yes.

Q. The Honeybrook lands of the Lehigh and Wilkes-Barre Coal Company are a very insignificant part of the Lehigh and Wilkes-Barre Company's holdings, are they not? A. Yes.

Q. So that most of the Central Railroad of New Jersey tributary coal tonnage, under your way of figuring it, is in the Wyoming region, is it not? A. Yes. The Lehigh Coal and Navigation Company lands come in, and that is a very important factor in this, you know.

Q. In the Lehigh region? A. Yes, sir.

Q. Just how did you figure out, in 1896, that the Central Railroad Company of New Jersey, with lands in the Wyoming and the Lehigh region, would have a life of one hundred and sixty-three years? A. I divided the tonnage of coal that went annually over the railroad at that time into the total tonnage that they had here.

Q. Then in 1912, in the table which the Government now put in, from page 92 of the communications to the Eighth International Congress of Applied Chemistry, you give the duration of available supply of anthracite coal at the present rate of exhaustion, for the Wyoming region as forty-one years and the Lehigh region sixty-three years? A. That is the way that comes out, too. I did not know there was that coincidence until you just now mentioned it.

Q. That is, the Jersey Central lands are going to last one hundred years longer than the duration of the available supply of anthracite coal in the Lehigh region? A. One hundred years longer?

Q. Yes. A. You must understand that the shipments are different now. The rate of shipment from the Lehigh region is a great deal more than the shipment on the Jersey Central Railroad was in 1912, you see. The smaller quantity of coal divided by a much smaller factor, might come out a great deal more than the larger supply of coal divided by a larger factor.

Q. And all that tremendous difference, in that first case, has been brought about by the experience of eighteen years? A. No. The first estimate is the Central Railroad of New Jersey only shipments. Now in this other table it has reference to the whole Lehigh region, and there are other shipments going out of that besides the Central Railroad Company of New Jersey's now. You have not only the Central Railroad of New Jersey but the Lehigh Valley and the other railroads that are in the Lehigh region. They are all shipping coal and they produce a very much larger tonnage that goes to market. So if we divide a tonnage that amounts to, say two into a hundred tons, that would leave fifty years. But if we divide a tonnage that was only one, or a quarter for instance, into fifty, we would have a good deal longer time, you see. So that that comes out very naturally by division. We do not use the same numbers to divide by.

Q. Has the Lehigh Coal and Navigation Company sold any of its lands, to your knowledge, in the interim? A. No, not that I know of.

Q. Did the Lehigh and Wilkes-Barre Coal Company? A. Not that I know of. Then too, Mr. Reynolds, the lands referred to belonging to the Central Railroad Company of New Jersey here, contained a lot of coal which is not included in that Lehigh Valley—that includes the coal in the Lehigh region, but the Alliance lands and other lands subsidiary to the Lehigh Coal and Navigation Company are in the Southern field, you see, so that they come out of that, and all these different changes make the figures come in that way.

Q. You were speaking of the Pennsylvania Railroad shipping from the Lehigh regions a few minutes ago. Where are they shipping anything from the Lehigh region? A. I do not remember speaking about the Pennsylvania shipping from there. I spoke about the Lehigh Valley.

Q. In your exhibit there you speak of the Pennsylvania Railroad shipping from the Lehigh region. Is it a fact that they have ceased so to ship? A. They have 200 acres of land there, and were shipping from some colliery. I suppose—yes, a colliery that they had a contract with at that time.

Q. The Susquehanna Coal Company has not any operations in the Lehigh region, has it? A. No, but they did have about this time. They had their West Hazleton lands, which have been sold since, you know.

Q. The point is, there is no Susquehanna Coal Company coal shipped from the Lehigh region at present, is there? A. Not so far as I know of.

Q. Nor was not at the time you wrote your article for the International Congress of Applied Chemistry? A. No, I do not think there was.

Q. So that would not have any effect on the duration of the life of the region, would it, one way or the other? A. The coal is still there, you know, and may be mined by other people.

Q. You mean 1,100,000 tons of coal is there? A. Yes. It was at that time controlled by the Pennsylvania Railroad.

Q. And in twenty years they have not mined a million tons? A. If they own it still, they have not mined any; but I think they have sold it.

Q. You did not say in 1896 that they owned it, you merely said that they had a tonnage contract. A. Yes, a tonnage contract. There was some ground down there that was tapped from the Pennsylvania Railroad somewhere; I do not know where it was.

Q. If they only had a million tons twenty years ago and were under contract to ship it by the Pennsylvania Railroad, it would not be much of a factor to-day, would it? A. No.

Q. In relation to the total? A. No.

Q. Of the total Lehigh region, 464,000,000 tons, it would be 1-464th, so that can be ignored, can it not, in reconciling your two periods of variation? A. Well, I do not know. You see, I do not follow these figures quite rapidly, and it may be it would affect it the other way. I do not know. I would have to go over these figures.

Q. It would not affect it much either way? 1-464th projected into two hundred and sixty-three years would make about six months, would it not? A. Yes, but there is a peculiarity in the Lehigh region, which is referred to in this Bond Record article; that is, that if you depend on the ordinary course of underground mining for the Lehigh region, as they did in the past, their output would be rather small; but they have a great many thick veins, and they started the method of stripping from those veins and have added thereby one hundred to one hundred and fifty million tons to their product, which is just merely referred to in this and not included in that estimate.

Q. Where do you know of any stripping operations in the Lehigh region, except at Audenried? A. At what they used to call Harley, and at Sandy Run.

Q. Do you not know that Sandy Run is abandoned? A. Yes, but they stripped there all right.

Q. Now? A. Not now, but they did. They filled it up again.

Q. I am talking about the present. You know Sandy Run has been abandoned for a long time? A. Then I think the Markles did a whole lot of stripping. I do not know myself. I have not been in the Lehigh region to

examine it carefully, except just passing by on the trains, you see, and there may be stripping there I do not know of.

Q. How long ago was that? A. I have been down there every year more or less two or three times, but I only know just from the cars. I have not been out around at all and there may be stripping there that I do not know about, and there may not be. It may be all completed and stopped; I cannot say as to that, but I have reference to this thing that was going on there. There are doubtless other lands in the Lehigh region which may be stripped. I cannot say as to that.

Q. You really do not know very much about the present condition there? A. No, I have not been there lately. The fact of the matter is that my work of recent years has been all over the world, outside of the anthracite region, you know.

Q. You have been in the western territory a great deal in the last ten years, have you not? A. No, all over the United States, Alaska, Mexico, South America, Canada in both directions, and in our Northern anthracite field more or less.

Q. Take the last ten or fifteen years; you have devoted very little attenion, really, to the detailed business in the anthracite region, except right around Scranton, in your work on the coal support question? A. That is true, yes, sir.

Q. I understood you to say, from your direct examination, that these articles of Mr. Smith and yourself really were the germ of this field of investigation, prophesying the exhaustion of the anthracite coal supply, were they not? A. I think Mr. Harris started the thing.

Q. Then Mr. Harris, before that? A. Probably, yes.

Q. And really you three men have done all there has been done on the subject, practically? A. Practically, yes, sir.

Q. Could you hope to render any authoritative service, in a work of this sort, in less than six months' time, and then if your work was not facilitated by the hearty co-operation of the engineering staffs of the various coal

companies tributary to the several railroads, and would it not be necessary for you then to have, besides all that help, twelve or fifteen competent assistants to compile the results and prepare them, in readiness for you to testify, and even on six months' time, would not every day of that time be important in getting up such testimony? A. Yes, sir, if you were to throw away the work of the Pennsylvania Geological Survey. If you based it on the records of the mining companies as they are now, doing it all over again, throwing away the work of the Geological Survey, it would take a tremendous amount of time and lots of men, etc., as you have said; but with the Geological Survey, as this was done, you could make it in a short time. I do not think it would be quite so complete as the method you speak of. This took me about four or five months, as it is.

Q. In 1895? A. In 1895, yes, and if you were going to throw this information all away and not use the work of the Geological Survey, but go to each coal company and compile the information from their maps, etc., it would make a tremendous job.

Q. You had all that work of the Geological Survey and five months of time when you made your original report in the Bond Record, in 1896? A. Yes.

Q. And you had also had eighteen years' experience when you made your report, or read your paper to the International Congress of Applied Chemistry? A. Yes.

Q. And you still said that it was impossible to predict, with any approach to accuracy, the duration or life of the supply of anthracite coal in the United States, because there are so many unknown quantities entering into the proposition? A. That had reference not only to Pennsylvania but to the United States, Alaska, Colorado and other places, you know, and it is true also with reference to the Pennsylvania fields alone, because I do not know what the future is going to bring forth. We do not know how long it will last. If we just simply divide the approximate tonnage by the shipments per year, or the production per year, we can get a figure which represents

the life of anything. It is an estimate, the best we can do now. But the future experience, the future results, may change that. They will hardly make it any less. They may make it a great deal more, because we are all the time finding new ways of utilizing coal; we are finding new and cheaper methods of mining coal and, as the coal becomes exhausted, it becomes higher in price and, therefore, they can afford to spend more money getting out coal that they could not get years before. Consequently, when you come to estimate the life of the coal supply, you have to base it on something you know about; but, as to whether it is going to be anywhere near correct or not, that depends on the future, on what they do in the art of mining and preparing and using coal.

By MR. COUDERT:

Q. That is the uncertainty, you mean? A. Yes.

By MR. REYNOLDS:

Q. In this article you wrote you did not consider the subject of the coal deposits in Rhode Island, or Alaska, or Colorado, did you? A. They are referred to in there, yes.

Q. I know, but you did not consider them in your estimate of the life of coal in Pennsylvania? A. No.

Q. Or the United States? A. I am just saying that, when I made that remark, it had reference to the whole United States; but it is true also of Pennsylvania alone, as I said, and I explained why.

(At 1 P. M. a recess was taken until 2.15 P. M.)

Re-direct examination.

By MR. COUDERT:

Q. Mr. Reynolds questioned you in regard to that figure of 650 tons of coal per foot-acre, both in the Southern and the Northern fields, and asked you whether it was coincidence that you had reached that amount for both the fields. Did you reach that amount by a similar method for both fields? A. I reached it by a similar method. It did not make exactly that amount, but I made it that amount for convenience in making the estimate. In the Southern field

the amount came out 636 tons to the foot-acre. In the other two fields it came less than that, and I increased it in every case up to 650 tons; but the increase in the Southern field was less than it was in the other two fields. You understand, it was more conservative with reference to the two Southern fields. The assumption of the difference between 36 to 50 was the increase there.

Q. So it was a more conservative estimate, as far as the Southern fields were concerned? A. Yes, as far as the two Southern fields were concerned; that is the Western Middle and Southern Middle fields.

Q. You have read the testimony of Mr. Huber in this case? A. Yes, sir.

Q. Have you read the testimony of Mr. Richards also? A. Yes, sir.

Q. You have read them carefully? A. Yes, sir.

Q. Have you anything to say in regard to their criticism of your table? A. Mr. Huber attempts to make a comparison of my estimate, that was made eighteen years ago, with the tax assessment on lands that are different lands, many of them, from those which I estimated on, and under entirely different circumstances, made eighteen years later. The engineers for the assessment estimate according to the improved condition of the art of mining and preparing and selling coal, using coal now, and, therefore, the quantities they estimate per foot-acre are very much larger than was customary and was in vogue at the time of my estimate. When they mine now beds of coal between four feet thick and two feet. They also mine now a great many more pillars than they did then, which were not included in my estimate. They also mine smaller coal, a great deal more of the really small coal, which was not mined in those days, so that any estimate made now by assessors, or anybody else, would be very much larger per unit of volume than was made by me years ago. It was attempted to be made in a conservative way. Then Mr. Huber attempted to make this comparison not knowing the lands that I had included under the different railroad companies, and, of course, he could not make a fair compari-

son, as he admitted later in his testimony. Then in one place he claims, in his testimony, that the amount of tonnage that I credited to the individual operators, as I understand it, was something over 26,000,000 tons. That is not a true statement. That is the tonnage that I credited to lands that were not operated at all, just simply individual lands, owned by individuals and not leased to or operated by any railroad. The individual operations that I estimated on were all included under the various railroad headings, and the tonnage controlled by the individual operators ran up into a great many more tons of coal than that; up to two to four hundred million tons. I do not know how much now, but a great deal more than this 26,000,000 tons, which was simply the land which was available for purchase or lease at that time, virgin lands owned by the original owners, not operated, and held for sale or for lease. Since that date most of them have been purchased by the companies, or have been leased and are under operation; very little of it left.

No estimate of anybody, based on the taxation at the present time, would be any criterion by which to judge my estimate, because a great many of those taxable lands are not taxed to the company that ships the coal. Take for instance the Lehigh Valley. There are a whole lot of lands included in my estimate under the Lehigh Valley, which are not taxed to the Lehigh Valley at all. They are owned by individuals and taxed to individuals. Some are sold to other railroad companies and are taxed to them.

Q. Will you amplify that a little, in regard to the Lehigh Valley and the criticism that is made as to your figures dealing with the Lehigh Valley coal? A. Yes. Along with the Lehigh Valley I included, as being tributary thereto, and under that heading in my estimate, some thirteen or fourteen individual or independent mining companies. The Lehigh Valley have produced since that time, according to Mr. Huber, 44,236,000 tons; but these other independent operators, who were included with them, have produced 43,978,000 tons, or just as much, pretty nearly, making the total production from the lands that

I estimated on as Lehigh Valley lands, something over 88,000,000 tons. I figured about 179,000,000 tons as being the content of those lands, and Mr. Huber testifies that the testimony of the Lehigh Valley shows only about 61,000,000 tons. That is for the portion of the land which produced only half of that 88,000,000 tons, and that leaves only 30,000,000 tons to be still produced from the other half of the land, you see. Consequently, that does not refute my estimate at all.

Take the Delaware and Hudson. My estimate was 115,000,000. Mr. Huber gives the shipments at eighty-four million odd, which leaves 31,000,000 to be in the ground, according to my figures. But you would have to add all the thin coal that the Delaware and Hudson has up above Carbondale and Scranton and around there, somewhere around 50,000,000 tons of coal that they have in thin veins, below four feet. If you add those, it would make it somewhere near 81,000,000 tons they would have left. Now if you divide the 138,000,000 tons remaining by the 1100 tons to the foot-acre that they are estimating now for the Delaware and Hudson, you would have something over eighty-one and a half million tons left, and that checks up pretty close. So with the other companies. For instance, there is the Delaware, Lackawannna and Western Company. For instance, there are twenty-one independent operations that were estimated on as part of the Delaware, Lackawanna and Western shipments at that time. Since that time four of those are shipping largely over the Pennsylvania system. One of them has been abandoned and four of them have been purchased by the Ontario and Western, one by the Erie and one by the Lehigh Valley, so that we have a great many properties there that were estimated as D., L. & W. properties that were not estimated by me and on which the D., L. & W. does not pay taxes now at all.

Q. So that, in the main, the discrepancies between your figures and Mr. Huber's are due to the fact that you and he had entirely different areas before you? A. Different areas before us and different rates per foot-acre of estimating, and things of that kind.

Q. A difference between two and four feet? A. Yes, and the difference between 650 and—up above Scranton there, I believe they estimated from ten to twelve hundred tons to the foot-acre, and down below from eight hundred to fourteen hundred. It depends on the locality and the conditions, the difficulties of mining the coal. So that in very few cases are the properties the railroads pay taxes upon the same properties that I estimated on; only a portion of them.

Q. Have you anything else to say in regard to Mr. Richards' testimony, any other matters you would like to call attention to? A. Mr. Richards made reference to the three-feet beds as being more minable in the Northern field, or less so in the Southern. He knows better than that. He knows there are some things about three-feet beds which make it appear as though it was easier to mine them, but he knows just as well as anything that there are other things about these thin beds which make it a fact that they are easier to mine than the same thickness in flat measures, and, if he were called upon to swear right up and down to that fact, he would go back on the appearances mighty quick, that he gave there. The Lykens Valley beds, in the western part of the basin, are in the lower part of the measures and have only been mined where those measures come to the surface, and have only been tested in those parts of the basin. In some places they have been found as thick as ten feet, for instance, some of them, and in other places they have been found thin. Sometimes these thick beds are unreliable and squeeze out in a little while. Sometimes the thin ones get thick in a little while, and, so far as the Dauphin basin is concerned, it is like an unknown territory. Mr. Richards does not know very much about it, nor anybody else. It has not been explored very much. There is coal there, and there ought to be considerable coal. Now, instead of estimating these beds at five or six feet thick, or ten feet thick, I put them as low as my estimate would permit, down to three feet thick, and estimated—Mr. Richards says he figured it out, I believe, on the figures I gave him, at about

150,000,000 tons. The other estimate, made by Mr. Smith for the Coal Waste Commission, was one hundred and thirty odd million tons for those same beds, after quoting the adverse conditions that exist in that locality. Then, too, nobody knows actually whether the Lykens Valley beds are good for anything in these deeper measures or not, over the rest of this Southern field. They have been found good in some places in the Western portion and the other portion is so deep we do not know. In so far as the Schuylkill region is concerned, I have only included the Lykens Valley beds as minable under forty-three per cent. of the whole region, throwing away absolutely the other part, fifty-seven per cent., of that whole region, as not having beds of minable thickness. My idea was that it would average up. You see, this is an average estimate. I did it to cover the known and the unknown for the whole acreage. Now this Dauphin basin is a stretch of land twenty-three miles long by about a mile wide at one end to nothing at the other end, and is very deep. There are possibilities, in the unknown portion of it, of their finding a great deal better coal than they estimate, or that they can find now. Then, too, there were beds working in this Dauphin basin and in that section and in the Lykens Valley veins years ago, been working for a long time, and the experience of those mines, Lincoln colliery, &c.—the tons they got out, &c., and the area mined over—was included in making up my average for the whole field, of 650 tons per foot-acre. If those veins there were bad, the mines were poor and the veins were poor, it showed in that—that is what made the thing so low. If they had been better, my 650 tons per foot-acre would have been larger, for instance.

Q. Would you be influenced, in judgment as to the correctness of your estimate, by the fact, testified to by Mr. Richards, that certain people had tried mining in those regions and had failed? A. Oh, no.

Q. That would not affect your opinion of your estimate? A. That did not affect me. That does not affect anything in this estimate. Because people who go down there to mine, and do not know how to mine, fail, that has nothing

to do with it. I suppose there have been people who went there from the Northern field who made failures, and people in the Southern field have made failures, but these failures have all been included in getting the 650 tons' factor.

Q. From your general knowledge of the coal situation, would you say that the mere fact that people had gone there and had not been commercially successful in mining, did not at all mean that there was not an amount of coal there approximately up to your figures? A. Oh, no, not at all, simply because the result of these failures, the tons of coal that came out of those failures, went to market just the same as the tons of coal from other places, and if a great big mine only produced 10 tons, that went to market and had its effect in my factor.

Q. And those failures could be explained by lack of knowledge of mining, or lack of good methods? A. Yes, and lack of good coal, possibly, in those particular mines. My estimate was an average estimate. It included the good with the bad, and, while this 650 tons would not apply to each colliery, some of the collieries that were good, where the Mammoth Vein is a great deal thicker, and the other veins average thick, would raise the estimate above that, so that while the average is 650, it might be very poor in one case and very good in another, and the selection of a whole lot of poor mines is no refutation of the accuracy of the estimate. He would have to include with it a whole lot of good mines, to average up.

Q. Is it not quite possible that there may be tremendous amounts of coal there, that could be secured by improved methods of mining, were the methods to be improved? A. Yes, no doubt about that. They are improving their methods of mining now, and they are getting more coal now; coal that they lost when I made my estimate they are mining now, through improved methods. There are a good many things which may be said about each particular mine, in each particular coal vein, both derogatory to it and, in some cases, to its advantage. If you speak of all the disadvantageous things, without saying anything about the advantageous ones, you do not get a fair estimate of the

value of the mine, of the veins. Now as to the thickness of veins that they are mining down there, all through the Schuylkill region. If they find as low as two and a half feet, or anything that they think they can get out, they mine those beds along with the thicker ones. They do not open new mines purposely for thin veins, but they do mine thin veins along with the thick ones, in almost every mine, and that, of course, is so in the Northern field. It is all over. Nowadays we have got to the place where we want to conserve all the tonnage we possibly can, and we are getting a large amount of tonnage from those thin veins which, years ago in 1895, they did not mine—they left them for the future apparently—and they are not included in my estimate. There is a matter I wanted to say something about in connection with a question Mr. Reynolds asked me about that sixty-three years' life.

Q. I was going to ask you about that. What have you to say in regard to that question, on the life of the mines of the Central Railroad and others? A. I wanted to explain that. For instance, he asked me about that coincidence of the sixty-three years. In 1895 the Pennsylvania Railroad Company, in all of the three coal fields, is credited as having 316,502,750 tons available, according to the methods and practice of mining at that date, and that their shipments over the Pennsylvania Railroad at that time were a trifle over 5,000,000 tons per year, giving a life to those shipments, on that basis, of sixty-three years. Now the Central Railroad of New Jersey is credited on the same date as having 877,569,700 tons in all the three regions, and they are credited with shipping annually 5,388,104 tons. Those shipments on that basis, if continued, would last for one hundred and sixty-three years. In the amplified article, made some time ago for the Eighth International Congress of Applied Chemistry—that is 1912—the total available coal for the future was estimated at 633,200,000 tons, in the Lehigh region, and the total tonnage produced in 1910 from the Lehigh region was about 10,000,000 tons. Consequently, on that basis, that quantity of available coal would last sixty-three years. Now those are the actual figures of

these estimates and they speak for themselves and there is no contradiction.

Because sixty-three years is the result in the Lehigh region and another sixty-three years is the result in the Pennsylvania Railroad, for the former estimate, is a mere coincidence, and the fact that the Central Railroad of New Jersey is credited with one hundred and sixty-three years' life does not contradict the accuracy of the 1912 estimate, nor vice versa, because the figures are different.

Q. Can you give any testimony as to the increase of potential production and shipment from the Schuylkill field in the future, as compared with the potential production and shipment from the Wyoming and Lehigh fields—is the production increasing faster, or not so fast, in one than the other? A. The production has been increasing faster in the Wyoming region, the Northern coal field, than it has in the other. The daily production has been nearly at a standstill in the Lehigh and Schuylkill regions. In the Northern field the daily production has been gradually increasing. The number of days' work in the year has been practically at a standstill for all three regions for a number of years past. It has fluctuated—one year it would go up and down—but the average has been nearly the same for a number of years. Therefore, the increased tonnage per year comes mainly from the increased production of the Northern coal field, and, when the Northern coal field reaches its maximum of daily production, with a maximum of days' work per year, we will have the maximum output for the anthracite region. Since the Northern field has been increasing, and the others have been remaining almost constant, and since the Northern field has the shortest life at the present basis, it will be the soonest exhausted, and, therefore, in order to maintain the production of the State, we must mine larger quantities from the other coal fields, the Lehigh and the Schuylkill regions, later on.

Q. How far has all this subsequent experience and observation borne out the estimate that you made in 1895 of the rate of production and exhaustion of the Reading

Company's holding? Can you testify explicitly as to that, or can you not? A. They have maintained nearly the same rate of production all these years, approximately.

Q. You estimated that the Reading at that time had a life of two hundred and sixteen years, at its then rate of production. Do you remember how much the Reading was then producing? A. Something over 9,000,000 tons a year, I believe.

Q. Have they increased their production, if you know? A. Only slightly, I think.

Q. Not substantially, have they? A. No; some years more, some years less, but I guess it has averaged pretty nearly the same figure.

Q. About that? A. About that now; something over nine or ten million tons. I think that the life that I have given them credit for will eventually be found to be pretty near right. If there happens to be an area or field somewhere where I have made a miss in the calculation, there are other portions of the field where they will get a good deal more than I have estimated.

Q. You said you know of mines in the Schuylkill region in which they are mining veins as low as two and three feet. A. Oh, yes, there are. Mr. Richards, I think, has testified to that himself.

Q. Mr. Reynolds this morning asked you a question, which he apparently read from your article to the Congress of Applied Chemistry, and he asked you whether this was true: "It is impossible to predict, with any approach to accuracy, the duration of life of the supply of anthracite coal in the United States, as there are so many unknown quantities entering into the proposition. It would only be remotely approximate to divide the annual rate of exhaustion into the available supply, as we have above tabulated it." Let me show you the article and ask if that is the article that he referred to, and, if so, will you read to the end of the sentence which he truncated. A. Yes, sir. It goes on: "Because we know the production will continue to increase until it reaches a maximum, and then it will gradually decrease until the supply is ex-

hausted." That would perhaps lengthen the time that it would last.

Q. Have you anything further to say about that? A. Of course, we cannot estimate with accuracy on the future regarding the developments that will be made in the art of mining and using coal and preparing it for market, which will have a great effect on the length of the supply, the length of time.

Q. Will you kindly continue to read the article for the next two sentences, down in the following paragraph? A. "At the present rate of mining, the available coal of Pennsylvania would last about a hundred and four years, but our methods of mining are likely to be much improved in the future, and the results of new discoveries or inventions may change our methods of utilizing it, all of which would tend to conservation, and extend the duration of the supply. In fact, during the past ten years marked advance has been made along those lines, and we may expect it to continue in the future. While the anthracite fields outside of Pennsylvania are important, their tonnage is so limited that the coal from these fields will, in all probability, be exhausted long before this supply from the Pennsylvania region."

Q. And that is the fact, in your opinion? A. In my estimation, yes, sir.

Q. That the Pennsylvania fields will outlast everything else? A. Yes, sir.

Q. The rest are comparatively unimportant, are they not? A. Yes, sir.

Re-cross examination.

By Mr. Reynolds:

Q. I understood you to say this morning that you knew of mining, in the Wyoming region and Lackawana properties, of veins twenty inches in thickness? A. One particular place only, in one mine. I do not know whether they are mining now. They were a couple of years ago.

Q. I understood you to say also that you knew of no

place in the Schuylkill region where they were mining any vein that thin? A. Yes, sir; I do not know of any.

Q. I understand you also read Mr. Richards' testimony very carefully? A. Yes.

Q. And that there is an absolute, square issue between Mr. Richards and you on the question as to whether thinner veins can be mined in the Schuylkill region commercially, or in the Wyoming region? A. No, I do not think there is. The testimony does not show it. I think if he came here to swear to that thing, he would swear just the same as I do.

Q. But he has not, so far sworn just as you do? A. No, I do not think so.

Q. So, on the record as it stands now, you do not agree with Mr. Richards? A. No. Mr. Richards testifies that certain conditions with respect to the three-feet veins would make it appear that certain things were so, but he does not say anything about the other conditions, that make the opposite the actual fact.

Q. He does say, does he not, that you were unfair in assuming in your estimate that you could mine veins in the Schuylkill region one foot thinner than you could mine them in the Wyoming region? A. Yes, perhaps he does do that.

Q. And there is a square issue between you and him on that, is there not? A. I do not know.

MR. COUDERT:—I object to that as a mis-reading of the testimony.

MR. REYNOLDS:—I am asking the witness. That is my understanding.

THE WITNESS:—I do not know. If he says yes absolutely, then I would say there was, but I do not believe there is any case here where Mr. Richards particularly says—he says here Stenographic Notes, page 1785 (printed page 978), "The justification stated by him is because of the pitch. But experience with the Schuylkill region and with the Wyoming comes back again to the statement made before as to the character of veins. The beds in the Wyoming being firm, the Schuylkill region beds being broken, and heavy pitches, would make it appear to me that the balance should be on

the Schuylkill side." Now he does not go on and say that, with the thin veins in the Northern field, you have to mine enough rock to make head room for the men and mules and cars and all those things, while in the Southern field, where the veins are pitching, you can stand upright and you do not have to do those very expensive things. Then he does not mention also that, in mining an acre in the Southern field, you get more coal in the pitching veins, other things being equal, than you do in a flat vein, consequently you can afford to spend a little more money to get out the one and a half times as much coal, for instance, as you get in the Northern field. He mentions something about the crushed coal and the interstratified refuse, but that part of it, the interstratified refuse, is about the same in both fields. I will admit the crushing is more in the Southern field than it is in the Northern, but they are using that crushed coal clear down to the same size that they are using the other coal in the Northern field, the same small sizes.

Q. You understand that Mr. Richards criticized your assumption that in the Wyoming region the coal measures would be mined only down to four-foot beds, while in the Schuylkill region they would be mined down to three-foot beds—that is, to beds thinner than in the Wyoming region? A. Yes.

Q. You understand that he criticized that, do you not? A. Yes. In one place he says he thinks it ought to be turned around, but at that time that was the experience of the region. I did not say it would continue to be so forever, understand.

Q. Mr. Richards evidently thinks exactly the contrary from what you thought when you made this table. A. If you can find the place where Mr. Richards has actually sworn on that question in any of these suits, I do not believe he will bear that out.

Q. What you just read? A. But that does not say that.

Q. He says you ought to just turn the factors around.

A. Yes—no, he was asked "He has just turned them around?" and he says "Yes, sir." If he says that, we take a square issue on that, if he agrees to that.

Q. Right on that proposition you are reading from his testimony? A. Yes.

Q. And there is an absolute, square issue? A. Yes, sir, on that question.

Q. Between Mr. Richards and you, on that question? A. Yes, sir.

Q. I want to bring that out perfectly clearly. A. Yes, sir, in this connection there is.

Q. So that the Court has either got to agree with you or with Mr. Richards? A. One or the other, that is right.

Q. That is the plain proposition put right up to the Court? A. Yes, sir, that is right.

Q. Now, going to your criticism of Mr. Huber's criticism of you on the assessors' estimates of coal in the Wyoming fields, I understand that, in your exhibit in 1896, you threw into what you called "uncontrolled tonnage" in the Wyoming field, the item of 26,000,000 tons? A. Oh, no, that is not true.

(Question read.)

Q. Take the last total on the left-hand side of the page. A. This summary?

Q. Yes, you have the item there "Uncontrolled tonnage, 26,910,650 tons," in the column devoted to the Wyoming region? A. And a couple of asterisks in front of it.

Q. Let us read those into the record. The asterisk C says: "This tonnage is contained in undeveloped lands in private hands, still subject to purchase or lease?" A. Yes, sir.

Q. Then the note D, at the same figure, says "The region containing a major part of this tonnage is accessible by the Lehigh Valley, Delaware, Lackawanna and Western, Delware and Hudson, Central of New Jersey and New York, Susquehanna and Western?" A. Yes.

Q. "The remainder accessible also to the Erie and Wyoming Valley, Erie, Ontario and Western, and Pennsylvania Railroads?" A. Yes, sir.

Q. Now, then, that was one part of the independent coal which some of the railroads might have acquired since you made your estimate in 1896, was it not? A. Some of it they did acquire.

Q. But not all of it? A. No, there are a few of them have not been sold yet, just one or two properties.

Q. In that same table you give the tonnage controlled by contracts, 101,461,750 tons, in the Wyoming region? A. Yes, controlled by contracts 101,000,000.

Q. That tonnage, controlled by contracts, was coal that was otherwise independent, except for the contracts? A. Yes. It was owned by other people, and they had royalty contracts with the railroads, you know; that is, they shipped their coal over different railroads, and some of them shipped it over two or three railroads.

Q. I do not understand you to have any doubt about your statement in that table as to the tonnage owned by the various railroads? A. The tonnage, some of it, was owned by the railroads and operated by the railroads; some of it was owned by the railroads and operated by independent operations, under lease.

Q. But the railroads owned it? A. But the railroads owned the coal, yes. That is my understanding of it, at that time.

Q. Do you mean to assert that any of the railroads have been to any extent, since 1896, selling their respective coal holdings to some other railroad? A. They have, some of them sold them all back again.

Q. Where? A. The Delaware and Hudson sold some land to the Wilkes-Barre and Eastern, and they mined it for half a dozen years, and then sold it back to the Delaware and Hudson for more than they paid for it in the first place.

Q. So it was still railroad owned coal? A. Still railroad owned coal, yes.

Q. And would, therefore, appear either in the D. & H. or the Erie at the present time, would it not, or any time between 1896 and to-day? A. It would appear in some of those, yes.

Q. Do you know of any other place where a railroad has sold any of its coal properties to any other railroad? A. There was a whole lot of coal owned by individuals, that was included under some of these railroad headings, that was sold.

Q. That was tonnage held by contract, then? A. Yes.

Q But I am talking just about the tonnage owned, now. A. The Lehigh Valley had a lot of tonnage down at Forty Fort, which I think I estimated as being part of the ownings which went to the Temple Iron Company—Forty Fort and Harry E. Collieries. Swoyer & Co. were mining it, and that went to the Temple Iron Company. Then there is some of the Lehigh Valley holding that the Raub Coal Company are mining now, independents, and there is some of the Lehigh Valley coal that they are mining at a colliery there at Miners Mills, the Healy Coal Company, I believe, and I think it was Lehigh Valley coal that the Stevens colliery operated for a good while, but now it is under the head of the Lehigh Valley. I am not positive of that. Then the Lehigh Valley Coal Company owned, as I understand it, about a half interest in the Eberhardt lands, up at the head of the Valley, and they and Connell at that time were mining Lehigh lands. Now the Lehigh Valley have the whole thing. I do not know whether there are any other places.

Q. I notice that most of those that you mention are acquisitions by the Lehigh Valley? A. Yes.

Q. Then I understand it to be your view that it would be unfair for Mr Huber to criticize your estimate of the Lehigh Valley, because the Lehigh Valley in the interim having acquired all those properties, naturally they would have more coal now than you would have estimated they would have in 1896? A No, because those collieries were all credited to the Lehigh Valley in my estimate before.

Q. Then why would they not be just the same? A. But now they are not credited to the Lehigh Valley, the taxes do not go to the Lehigh Valley. When the assessors tax the Forty Fort Coal Company, the Temple Iron Company is taxed, and, when you take the assessments, you only get the assessments that go to the Lehigh Valley itself, and there are several of those companies, which I included as Lehigh Valley, who pay their own taxes, you see, and when Mr. Huber says they are assessed with so much, that does not include all the collieries that I in-

cluded in my estimate. Take for instance the D., L. & W. ——

Q. Let us stay right with the Lehigh Valley, until we get that clear. Where would it go to, then, if it did not go to the Lehigh Valley? It goes into the independent column? A. Yes. Here is the Lehigh Valley, for instance. There are 10,799,988 tons produced by the Temple Iron Company in that region. That he referred to. They pay their own taxes, and when Mr. Huber says that the Lehigh Valley is assessed with so much coal, he leaves out the coal that is assessed to the Temple Iron Company, he leaves out the coal that is assessed to the Alden Coal Company and several other concerns.

Q. And that coal all ought to go into the independent column? A. No, it ought to go under the Lehigh Valley heading, to make it compare with mine. He ought to put in under the Lehigh Valley heading, not only the land assessed to the Lehigh Valley, but the land that is assessed to all those other companies.

Q. That is, the independent coal? A. The independent coal, yes, and that would make an assessment of coal far in excess of 61,000,000 tons.

Q. For the Lehigh Valley? A. For the whole thing, the Lehigh Valley and the others.

Q. And it would reduce correspondingly the assessment of the independents? That is, you could not count it twice? A. No, you could not count it twice, but you would have to count it when you go to compare it with my estimate.

Q. When you compare it with your estimate, you would have to subtract it from the independents and put it into the Lehigh Valley, in order to make it comparable with yours? A. Yes. When you are going to compare the assessments now, in order to compare them with mine, you have got to compare the assessments on the same lands, don't you see, but Mr. Huber compared only about half the lands.

Q. He took some of those from the Lehigh Valley and threw them into the independents? A. He did not do any-

thing with these others at all. He did not pay any attention, say anything in his testimony about them.

Q. About the independents? A. About these independents here.

Q. How do you know? A. He gave a long list of independent operators in his testimony, but he did not specify which ones of those were included in my estimate for Lehigh Valley coal He said he could not do that. He acknowledged that, right in his cross examination, that he could not make an intelligent criticism of these different companies, but he said the total would be right.

Q. Would the total be right? A. No. The estimate of the total would not be right, because the assessors now assess pretty near double the quantity of coal to the same cubical volume.

Q. But the assessors would not be able to find any more than the total number of owners and the total coal in the community? A. No; he means the total of the whole region, you see.

Q. I mean the total of the whole region. A. The total of the whole region, the assessment for the total coal that is left, if you take the total coal that is left, according to the assessing officers, and compare it with my deductions, it will not refute my deduction at all, simply because they are now mining more coal out of the same land than I gave them credit for.

Q. They are not mining anywhere outside of the Wyoming region, are they? A. No, but mining right in the Wyoming region they are getting more coal from an acre of land now than they did then.

Q. All that outside coal would have to come from 127,000,000 tons of your estimate in 1896, would it not, just the Wyoming region? A. No, it comes to 179,000,000 tons, I think he said, I estimated for the Lehigh Valley.

Q. I am not talking about the Lehigh Valley. I am talking about all the coal that you estimated was in the Wyoming region not owned by the railroad coal companies. That included, as you testified just a few minutes ago, one hundred and one and a half million tons controlled by con-

tracts? A. That would include what I estimated would be controlled by contracts, but it would not include all of the individual operators, you know.

Q. And then 26,000,000 tons of what you called the uncontrolled tonnage? A. That would be added to it.

Q. Adding those together do you not get the figure that I stated a moment ago, of 127,000,000 tons? A. Yes.

Q. And that is where the opportunity for variation between you and Mr. Huber would come in, as I understand you? A. Yes, and in some other cases here. I refer to the changes that have been made.

Q. To refresh your recollection, you referred to the D. L. & W. A. Take the D. L. & W., for instance. They were getting coal at that time from the Plymouth Coal Company, the Kingston, Middle Lehigh, Black Diamond, Clear Spring, Pierce, Pine Brook, Capouse, Pancoast, Providence Coal Company, Meadow Brook, National, Mount Pleasant, Mount Jessup, Anthracite, Avondale, Chauncey, Parrish and the Ridge.

Q. Twenty-one in all? A. Some twenty-one collieries. Now out of these there are only five that would be included in the figures that Mr. Huber gave.

Q. For the assessment against the Lackawanna? A. Yes.

Q. So that that would naturally at the present time very much understate the coal of the D. L. & W. as compared with what they would have had under your estimate, if the twenty-one operations had continued under the D. L. & W.? A. If they had continued under the D. L. & W., they would have shipped more coal than they did at that time.

Q. And if you had those twenty-one counted in the assessment of the Lackawanna —— A. Excuse me; part of those, you understand, are still shipping on the D. L. & W., but they pay their own taxes.

Q. But the result of that would naturally be that the assessment figures would be under what you would make them on the basis of having the twenty-one people under the Lackawanna? A. It would if they assessed them at the same rate as I do, but they assess them at double, pretty

near, you know, and that increases the quantity that the assessors would show for the D. L. & W. If we both figured on the same rate per foot-acre, then it would, but we did not figure that way.

Q. But the general effect of the situation would be that all but five of the twenty-one independents having left the Lackawanna in the interim, the tonnage left in the Lackawanna would now be less than it would if they had remained in there? A. Oh, yes.

Q. So that the estimate would have been, by Mr. Huber's method, less naturally than you would have made it? A. Then the Lackawanna may have gained one or two collieries since, you know, which you have not referred to.

Q. The testimony is they have gained one. A. Yes, they gained one I think.

Q. Now, as I understand your testimony, you rather increased your factor of coal shipped to market in the Wyoming region, above what experience had demonstrated would be the factor? A. Yes, a little bit.

Q. You increased it from 571 tons up to 650, I believe? A. Yes.

Q. With your familiarity with the Schuylkill region you are aware, are you not, that the Chamberlin was not opened until just about the time you made your estimate, in 1895? A. I do not know. It seems to me there was an old mine, was there not, before that?

Q. Do you not recollect the conditions? A. Yes, I know. As I understand it, I think there had been an abandoned mine on that property before these people bought it. It was abandoned and they re-opened on that deposit, I think.

Q. As a matter of fact, to refresh your recollection, were not the old minings at Chamberlin on the outcrop? A. I do not know. I think they were, but there was a slope driven there, that I thought was driven by the old people. It might not have been. As far as that goes, it was rather a failure on the part of those Northern people coming in there.

Q. Captain May thought he had 30,000,000 tons of coal there, did he not? A. I do not know how much he thought he had. He thought it was a good proposition, I believe.

Q. That was abondoned about four or five years after your estimate of the Southern region? A. Yes. A good deal of what they thought was good coal, was crushed so fine that it was not marketable.

Q. They could not get it to market at 650 tons to the foot-acre? A. There was coal there, but it was crushed fine.

Q. They could not get it to market? A. They could not sell it. It was not marketable coal.

By Mr. Coudert:

Q. You are speaking as of that time? A. Any time, I guess, unless you take into account the briqueting of coal, which may come in the future. In its condition at that time, you could not sell it.

Q. Is that impossible now, the briquetting of coal? A. Oh, bless you, no.

Q. They do it in Europe, all over? A. It is a question of economy. When the briquetting of coal can be done as cheaply as you can mine it, it will be done. It is a question of cost.

By Mr. Reynolds:

Q. The Thuron operation was opened the very year you were making your estimate, in 1895, was it not? A. I do not remember the exact date, but somewhere along there.

Q. And that was abandoned within three or four years, was it not? A. They mined it for a good while, and then I do not know whether they sold it or what they did with it. It is not mining now, anyway.

Q. They did not mine it after 1901, did they? A. I do not think they did.

Q. The Albright was opened that same year, was it not? A. I do not know about the Albright.

Q. It is abandoned, though? A. I know they did open it and mine it, but I do not know whether they are mining it now or not. I do not think they are, because young Albright has another job.

Q. You certainly do know about the great York farm operation? A. That was opened, and abandoned after

while, on account of the crushed condition of the coal in the seams.

By Mr. Coudert:

Q. Would you mind explaining "crushed condition," while you are there? A. It is crushed so that, when you dig it out, it is all dust, dirt. It does not come in big pieces that you can market. When they tried to prepare it, the prepared coal was such a small quantity that it made a failure of the operation. They could not sell enough to make it pay.

By Mr. Reynolds:

Q. As a matter of fact, the coal measures in that Southern region are very much inclined, are they not? A. Yes.

Q. As the result of folding? A. Yes.

Q. So that it is like trying to fold a book; the veins rub on each other and grind it down to dust? A. Grind down, yes.

Q. There is a great deal of that in the Southern region, is there not? A. Yes; there is a great deal of it, and the really crushed condition, where the coal is no good, is usually on the overturned portions of the basin.

Q. On the anticlinal or the sinclinal? A. On one side of the anticlinal.

Q. Where the fold comes? A. Yes. It is folded that way, see. (Illustrating with sheet of paper.) On this side, where the coal vein is right side up, it is usually good; but under, this side, where it is upside down, it is usually folded so it is not workable. But you understand that would have no particular bearing as affecting my estimate, because, in making my horizontal foot-acre estimate, all that overturned part would come in the foot-acre. It would be a tremendous quantity of coal, but it would not be very much good, you know.

Q. I understood you to say that, as to the Dauphin basin, it was an unknown territory; Mr. Richards does not know about it, nor does anybody else. A. They have made some probings there, but there is a large area of it that is practically unknown. They do not know what is in it. In some portions, on the eastern end of it, they have had mines

and worked them for a long time, and some of the mines are still working. Some are stopped, I understand. At the same time, the major portion of the basin has only been tested here and there.

Q. Do you know of any operation in the Dauphin basin except the Kalmia? A. No, I do not.

Q. When you say that nobody knows the Dauphin basin, Mr. Richards does not know about it—— A. He knows part of it. He knows the portion that he knows about, but the rest of it he does not know.

Q. Do you include among the others that do not know anything about it yourself? A. Yes, sir.

Q. Mr. Richards also included himself. A. He knows more about it than I do, I guess.

Q. He knows more about all that region than you do? A. He does now, but I do not think he did when the estimate was made?

Q. But now he does? A. Yes.

Q. You spoke of people that were not commercially successful in mining in the Southern field. Is it fair to translate that phrase of yours into this phrase: that the people were not able to ship their coal in commerce to market and realize a sufficient profit on it to justify the continuation of their operations? A. Yes, the operations of the mine were not profitable. Of course, to amplify that, I do not mind saying that I think the Reading have a good many mines there that are not profitable, and so have all the fellows that are mining, but they have some very profitable ones, and they average up and produce tonnage. If these individual operators had a railroad to ship their coal over, and could get a rate on it, maybe they would not have been so unprofitable, these mines.

Q. Are you also an expert on freight rates? A. No, sir.

Q. Your remarks on freight rates——A. They are very general.

Q. And not founded on any knowledge? A. No, general knowledge—just common knowledge; no detailed knowledge at all.

Q. A very common knowledge? A. Yes—that everybody ought to know.

Q. Is your experience in rate-making that of the Interstate Commerce Commission at all, or comparable with it? A. No; I have not had experience in that line.

Q. None at all? A. I have never made any rates for anybody.

Q. I understood you to say that, while your prophecy had hardly been justified in some regions, showing that you had over-estimated it, in other regions you had very apparently under-estimated it. A. You did not state that exactly right. I did not say that it was over-estimated. I said if, perchance, I had underestimated in one place, it is quite likely that in other places I would over-estimate. It would average up, I mean, the good and the bad. I maintain the integrity of the estimate all through now, just the same as it was, and I think still the Dauphin basin is not at all over-estimated, in estimating, as Mr. Richards says, 100,000,000 tons in it.

Q. Although you do not know anything about it? A. Although I do not know definitely about it.

Q. You still feel perfectly confident? A. Yes, sir, I think the time will come when they will get 100,000,000 tons out of that Dauphin basin, some day.

Q. Although you do not know anything about it? A. No, cannot know anything about it.

Q. And you feel that, if you did underestimate in one region and overestimate in another, that you came about right on the whole? A. On the whole, yes, sir; now understand, I think I came out as nearly as it is possible to make an estimate of such an abstruse, flexible matter as this is, and there was such a tremendous amount, as I said, of conditions good, bad and indifferent entering into it, that this method I have taken eliminated a quantity of those things; that is, on the experience of the region in the past and basing the estimate on the past experience, it is a conservative one for the future.

Q. Whether it hits —— A. Whether it hits some places or others. It may miss in some places, but it will hit in others.

Q. You yourself feel that it does not hit in some places? A. Why, yes. I think there are some mines that are not good mines and it is an overestimate for those. There are other mines that are a great deal better, and it is an underestimate for those. The 650, understand, is not a constant, I think you called it a constant there. There are mines in these regions which perhaps would not produce over half that much per foot-acre, you see. There are others that might produce twice that. But it averages up; the past experience averages up. I did not attempt to make a detailed estimate for each one of those mines, you know, like Mr. Smith did, for instance, in his testimony for some of them. He estimated the actual quantity of some 27 of the mines in the anthracite field, and he figured the actual experience was forty per cent., they had actually run forty per cent. of the coal. But I did not go at it that way. I took the whole region and then got an average experience for the fifty odd years in the past, and I think that will be conservative for the future.

Q. You feel that, while it would not do to invest money on the estimate as to some particular region —— A. No, sir, I would not have anybody invest any money on the basis of this, in any particular mine. I think if they want to invest money, they want to go and examine that mine and find out the peculiarities of that individual mine and make their own estimate as to that mine. You cannot base the amount of tons coming out of any particular mine on what this thing says. They would be terribly hit in some cases, and might make a fortune in others.

Q. Taking the seventeen smaller fields which the whole region is divided into, is it fair to say that the same observation would apply, that you would hit some of the seventeen fairly close and some of the others, perhaps, would be some distance off? A. Yes, I think so. It is an average estimate.

Q. That is, you feel that the sum of the parts is about right? A. Some of them will be undoubtedly about right. Some the estimate will overrun and some the estimate will underrun.

Q. You feel that the aggregate of all the seventeen regions is about as good as could be made? A. I think it is reasonably correct, as good as could be made in any way, except to make such a detailed estimate as you spoke of, that you were asking me about here some time ago. That would take a long time and would be a very laborious job.

Q. And that would be necessary, would it not, to show the amount of coal tributary to any given railroad, for instance? A. If you want to get at it in a really accurate way.

Q. That would be a very serious study? A. Yes, sir, no doubt about it.

Q. I think you a little bit misapprehended the point I asked you about before lunch, in comparing the one hundred and sixty-three-year period mentioned in your prophecy of 1896, with the sixty-three year period in your prophecy of 1912. As I listened to your explanation, it seemed to me you thought my question was making a comparison between the sixty-three-year prophecy for the Pennsylvania Railroad in 1896, with the one hundred and sixty-three-year prophecy of the Central Railroad Company of the same year. Therefore, that explanation is not responsive to my question. A. I might have misunderstood it.

Q. My question was this: in your estimate in 1896, you gave the tonnage of the Central Railroad of New Jersey as such that it would last, at the then rate of mining, one hundred and sixty-three years? A. Yes.

Q. Now my question was not anything about the Pennsylvania Railroad, as you supposed. A. I supposed you drew attention to the fact that the Pennsylvania Railroad was sixty-three years, and in the Lehigh region something was sixty-three years.

Q. I saw that from your explanation. I did not mean that, nor I did not say that. What I called your attention to was this: that years later, in 1912, when you came to make another prophecy on this subject, you prophesied that the Lehigh region would last for sixty-three years. A. Yes.

Q. And that the Wyoming region would last for forty-one years? A. Yes.

Q. Then I called your attention to the fact that the Central Railroad properties were in the Lehigh and the Wyoming regions? A. Yes.

Q. And yet you gave the Central Railroad Company of New Jersey a life of one hundred and sixty-three years? A. You see, the Central had properties in all four regions. They had a very large quantity of coal and were shipping a comparatively small tonnage to market, as compared with the tremendous tonnage that goes out of the Northern field, you see, so that there is no contradiction in that at all. It is perfectly possible. The Northern field, for instance, shipped over 44,000,000 tons in 1910, and that, divided into what I have figured for them, would last forty-one years. The Central Railroad Company, according to this estimate, had coal in all four of these fields; had 677,000,000 tons altogether, and they were shipping only 5,000,000 tons a year, so that, on that basis, it would last one hundred and sixty-three years.

Q. You say that the Central Railroad Company of New Jersey had tonnage in all four regions? A. I mean the collieries that shipped over the Central Railroad, I mean the Lehigh and Wilkes-Barre ——

Q. Where had they any tonnage in the Western Middle field? A. I meant the Wyoming field and the Hazleton field and the Panther Creek field—the Hazleton-Panther Creek goes to the Lehigh, you know—and the Southern field. I do not think they have in the Western Middle field.

Q. They have not in the Pottsville field? A. Yes, they had then, the Alliance.

Q. You refer to the Alliance? A. Yes. Those belonged to the Central Railroad at that time, all those properties that were shipping over the Central at that time.

Q. The Alliance Coal Company you throw into the Lehigh Coal and Navigation tonnage? A Yes, the Lehigh Coal and Navigation Company.

Q. And that tonnage in 1896 you put as 170,000,000 tons? A. The Alliance?

Q. Yes. A. There are some others, too.

Q. The Alliance would take care of that, then? A.

Yes, and it may be there are some others besides the Alliance. That is what I have reference to, in the Southern field.

Q. You have 170,000,000 tons, which includes, you are sure, the Alliance? A. The Alliance is part of that.

Q. And perhaps others? A. Perhaps others, I do not know.

Q. So that it would take in all that you have attributed to the Jersey Central in that field? A. I think so, yes.

Q. And that is 170,000,000 tons? A. Yes.

Q. Then, as I understand your explanation, it is this: that, although the 350,000,000 tons tributary to the Central Railroad of New Jersey in the Wyoming region will last forty-one years and the 359,000,000 tons of the Lehigh region will last sixty-three years, the probability is that the throwing into that tonnage of the 170,000,000 tons of the Alliance Coal Company and others, that you cannot think of, will increase that duration to one hundred and sixty-three years? A. On that basis you include in that the Lehigh Coal and Navigation, you see, increasing that to one hundred and sixty-three years. You will see in my estimate I am giving the Central Railroad a pretty good allotment of tonnage there.

By Mr. Coudert:

Q. By applying the same method of calculation, it would increase it that much? A. Yes.

By Mr. Reynolds:

Q. It just explains it? A. It explains it. Whatever the sum total is, the total tonnage tributary to the Central Railroad Company of New Jersey, went into the tonnage, and the total shipment for that year was the divisor, so that made it one hundred and sixty-three years, on that basis.

Re-redirect examination.

By Mr. Coudert:

Q. Have you seen anything in these various criticisms brought forth by witnesses for the defendants that would affect your estimate as far as the relative proportion of transportable coal in the Northern and Southern regions

is concerned? I mean by the witnesses for the defendant, the witnesses Huber and Richards, whose testimony you have read.

MR. REYNOLDS:—I object to that question as, of course, improperly put. We do not know what the witness knows about what has been testified to, or any of the foundation of the answer that he may make.

A. No, I do not know of anything. There are some things that I do know that might affect the thing, but not from their testimony.

Q. As far as you know, there is nothing there that affects your figures as to the relative proportions of coal in the two regions? A. No, not at the present time—not at the time this was made.

Q. Do you agree with this statement, referring to the Southern field, by Mr. Griffith: "The lower limit of profitable mining on a pitch, where coal will run to the loading point is three feet, while in flat workings, where the car must be taken to the working facing, a profitable business cannot be done on much less than four feet?" Is that substantially right? A. Yes, sir; that is the way it was when I made this estimate.

Q. And that agrees with your view? A. I think perhaps you might reduce both of those a little bit now.

Q. So that, at the time you made that estimate, that statement that I have read to you was a correct and honest statement? A. Yes, sir.

Q. Now you dissent *in toto* from the statement on page 978 of the printed record, made by Mr. Richards, "That is, there would be more reason, from a scientific and practical standpoint, of saying you could mine down to the three-feet beds in the Wyoming region and could not go below the three-feet beds in the Schuylkill region?" A. Yes, sir, I do.

Q. The first statement that I have read to you is on page 950 of the record, and is made by Mr. Richards. Therefore, you agree with Mr. Richards, speaking on page 950, and dissent from Mr. Richards on page 978? A. Yes, sir.

Q. So that you prefer his testimony on that point on

page 950 to the opposite testimony on page 978? A. Yes, sir.

Q. You are convinced that the first testimony is correct, namely, that on 950, and accords with your estimate, and that his second statement, some pages further along, is incorrect? A. Yes, sir.

By Mr. Reynolds:

Q. And you are still convinced that the Lackawanna Railroad is mining coal down to twenty inches in the Wyoming field? A. I do not know whether they have stopped or not, but they did at one time. In one spot. They mined it in one vein because they wanted to get the coal out of the other one. It was not profitable, of course.

Q. And the Delaware and Hudson are mining twenty-seven-inch veins? A. I do not know about that. That may be; very likely they are. They are pretty short of coal, and they will mine anything that they have got, in these thin veins.

Q. And thirty-inch veins are being mined very frequently in the Wyoming region? A. Where they exist, in mines that have thicker veins.

By Mr. Coudert:

Q. Who retained you in the recent case, in which you testified for the Reading—what individual, Mr. Richards? A. No. It was the man that had charge of their lands.

Q. Was your testimony as to the value of coal lands? A. Yes, sir.

Q. And you testified as an expert on their behalf. Do you know whether the railroads keep detailed estimates of their minable coal? A. I do not know; I do not think they do. I do not know. They make them up, doubtless, for tax assessments and things of that kind. In fact, they would have to make them up, to get these tonnages Mr. Huber referred to.

Q. Aside from those they make for tax assessments, you do not believe they have any? A. I do not believe they do, but I do not know.

Q. Why do they not have any? A. I do not know that.

(Adjourned until Tuesday, May 5th, 1914.)

Met pursuant to adjournment Tuesday, May 5th, 1914, 11 o'clock A. M., at No. 2 Rector Street, New York City.

Present.—The Examiner. Messrs. Coudert, Kingsbury and Gordon, for Government. Mr. Reynolds, for defendants.

Frank M. Swacker, having been duly sworn, was examined as follows:—

By Mr. Coudert:

Q. Please state your address and business. A. Department of Justice, Washington, D. C.; special assistant to the Attorney General.

Q. I refer to the testimony of Mr. Auch, on page 550 of the printed record, referring to the statistics of anthracite and bituminous coal carried by the Wilmington and Northern; in his testimony he says that in the years 1885, 1890, 1894 and 1898 the anthracite and bituminous are grouped together, due to the fact that, during those years, there was no separation made as between anthracite and bituminous coal transported. Have you examined the reports of that railroad to the Interstate Commerce Commission, and have you found therefrom how much anthracite and bituminous they transported in the years from 1894 to 1898? A. I did.

Q. I show you these figures and ask you if those are the figures that you copied from the reports on file with the Interstate Commerce Commission? A. They are. I did not look back of 1894, and I do not know what they show. I just looked at those years there.

The statement referred to is as follows:—

Year.	Anthracite.	Bituminous.
1894	166,874	57,752
1895	180,186	100,451
1896	197,380	151,033
1897	192,739	121,247
1898	176,204	195,520

MR. REYNOLDS:—In fairness to Mr. Auch, I would like to note at this point that the Reading Company did not lease the Wilmington and Northern until 1900, and it is manifest that the records that Mr. Auch had were not as complete as the records which were sent by the Wilmington and Northern to the Interstate Commerce Commission. I very gladly accept the amendment that the Commission is able to furnish, from the original files of that company.

By MR. REYNOLDS:

Q. I understand that the years which you have read into the record are the fiscal years ending June 30th? A. Yes, sir.

Q. And that the years on printed page 550 were for the year ending December 31st, down to and exclusive of the year 1900? A. Yes.

Q. So that the two sets of figures are not strictly comparable? A. No, but they are relatively so, of course.

By MR. COUDERT:

Q. Will you please state your experience in connection with the railroad business generally? A. I have worked for railroads, or been associated with railroad matters, since I was eleven years old; twenty-four years, that is.

Q. In what capacities? A. I have worked in local offices, general offices, in the accounting department, engineering department, traffic—in various branches of the business. During the last five years, up to recently, I was with the Interstate Commerce Commission.

Q. What has been the nature of the work you have done for the Interstate Commerce Commission? A. Investigating generally all sorts of matters, rate matters and practices, and transportation matters, and anything of that kind that I might be given.

Q. All manner of details in connection with the railroad business? A. Yes.

Q. What railroads here in the east have you had occasion to become quite familiar with? A. During the last two or three years I was with the Commission I was located almost all the time in New York, and, in that way had to do with all of the roads in what is known as trunk line ter-

ritory, and also New England roads; that is, as to those around this territory, the New York, New Haven and Hartford, the New York Central, the Erie, the Delaware, Lackawanna and Western, the Delaware and Hudson, the Lehigh Valley, the Pennsylvania, the Central Railroad of New Jersey, the New York, Ontario and Western, the Philadelphia and Reading, but not so much it as others, it being more, in a sense, a Philadelphia road.

Q. Have you quite a general familiarity with the general anthracite coal roads and their routes and methods? A. I have.

Q. Which roads do you class as the anthracite coal roads? A. The Ontario and Western, the Erie, the Delaware, Lackawanna and Western, the Delaware and Hudson, the Central Railroad Company of New Jersey, the Lehigh Valley, the Philadelphia and Reading, the Pennsylvania, and, in a smaller way, the Lehigh and New England.

Q. Have you some familiarity with the all rail routes by which anthracite coal goes from the mines to New England markets? A. I have.

Q. Have you examined the testimony of Mr. Koons, on page 1560 of the stenographic minutes (printed page 832) as to the all rail routes to New England, and have you any comments to make upon his testimony on that point? A. Yes. The statement needs a little explanation, I suppose, in this way, as to just what is meant by direct all rail routes. It is a somewhat ambiguous term. You might understand it to mean one, single road tapping the coal fields and either connecting into New England or connecting direct with New England railroads. That is one understanding of the word direct. Or you might mean it as merely direct, without regard to the number of carriers involved—direct as opposed to being circuitous. I assume that his idea is the first definition, that is, a road tapping the coal fields and connecting directly with a New England railroad, or going directly into New England. In the seventeen routes enumerated here, they evidently follow the second definition, and, aside from that, they would reduce really down to only

practically five distinct routes, by reason of the fact that the variations above five are variations in New England. That is to say, one route will be the same, except that it will be the Boston and Albany in New England, and another will be the Central of New England in New England, or the Boston and Maine in New England, and those changes are simply changes within New England, that make the difference between five and seventeen. If you want, I will explain them individually in that respect.

Q. The question of which one considers all-rail routes is very largely a matter of terms? A. That is, direct all-rail routes. Of course, these are all-rail routes, but as to being direct, it would depend on what you meant, yes. Under the first definition I gave, of what might be understood by direct all-rail route, there would really be only two of these that would be direct all-rail routes; that is, routes which tap the coal fields themselves and connect directly with New England railroads, without more than one road being involved in the route. That would be the Ontario and Western and the D. & H.

By Mr. Reynolds:

Q. What about the Erie? A. You might say, in that sense, that the Erie also connects at Maybrook with the Central of New England, which is a New England road. I guess there would be possibly one more in that respect, unless you wanted to count a connection via Jersey City with the New Haven, but that would not be exactly the same proposition—that is, float around to the New Haven at Harlem River. I believe that is all.

By Mr. Coudert:

Q. In your practical railroad work, and in your work with the Interstate Commerce Commission, have you had occasion to consider the question of railroad competition? A. Yes. It is a very important element of the traffic end of the railroad business.

Q. What factors make two railroads competitive? A. The simplest form would be two railroads having common termini, each able to transport a shipment intended to be

moved; that is each able to transport one single shipment, or any number of them.

Q. Need they be parallel? A. Oh, no; they may not be parallel. They may be competitive as to the traffic between those common termini and not competitive intermediately at all. They might be widely separated, or might cross one another a number of times, and not be competitive at all as to local traffic, traffic to local points on the lines, and yet be competitive as to the traffic between the common termini.

Q. Under what other circumstances would they be competitive? A. In practically the same situation, except that each of them may form part of a through route, there being other carriers involved as between those same termini. That is almost the same situation. It might be they would have only one common terminus, either the point of origin or the destination, and not be capable of each transporting the same particular shipment, but each transporting the same commodity, the commodities themselves being in competition; that is, the shippers of the commodity being in competition, or the sellers of it, in a common market.

Q. Take the case of anthracite coal between railroads tapping the same collieries and going to the same market; would they be potentially competitive? A. Yes; they would come within the first class, the simplest form.

Q. How about two railroads not tapping the same collieries, and yet going to the same markets; would they be competitive? A. If they haul the same class of coal, as in this case, each of them hauling anthracite coal, they would be competitive.

Q. What would the freight rate have to do with the question of competition there? A. It would be a very important factor, extremely so. On a low grade commodity, such as coal, the freight rate, being a substantial part of the selling price at the destination, is a very important competitive element, both as between the carriers themselves and to the commodity itself, the consumers of the commodity.

Q. Do you happen to know about what proportion of

the price of anthracite coal at New York tidewater is made up of freight rate?

MR. REYNOLDS:—That is a question I will have to object to. It is altogether too general. It is impossible for Mr. Swacker to know the answer to that, as you put the question.

Q. Have you any views to express in regard to the relation between coal prices and freight rates?

MR. REYNOLDS:—I still object to that question, as there is no proper foundation laid for an intelligent answer, in the description of the coal or its kind or quality.

By MR. COUDERT:

Q. Referring specially to the larger grades of coal, prepared sizes of coal? A. I understand the general tidewater market price of prepared sizes of coal to be around five dollars and a half a ton, and the freight rate to be $1.55 a ton on prepared sizes, or around that. It varies at various of the ports, I believe, from $1.40 to $1.60.

MR. REYNOLDS:—I move to strike out the answer, on the ground that the witness has not qualified himself to testify, and his answer discloses that he is not testifying with accuracy.

By MR. COUDERT:

Q. You would say that the freight rate, then, was a very substantial factor in the market price in the competition between the sellers? A. On that basis, it being approximately 30 per cent. of the market price, it would be a very substantial factor.

Q. How large a proportion of the price of a commodity must be made up of freight rate, in your judgment, to constitute the freight rate an important factor?

Objected to by Mr. Reynolds as simply calling for a conclusion of the witness, without any foundation for it whatever.

A. On a low grade commodity such as coal, or a thing that sells by weight for a price anything like coal, where the freight rate will amount to as much as ten per cent., or even a good deal less than that, it will often be a very important competitive factor.

Q. Where a railroad forms a link in a part rail and part water route to a given market, and another road forms a link in a wholly different part rail and part water route to the same market, would those two railroads be competitive for a commodity going to that market? A. They would potentially, yes, and often are actively so.

Q. Take the case of anthracite coal, going from the mines by rail to Port Richmond and thence by water to New England, and anthracite coal going from the mines by rail to New York tidewater, and thence by water to New England; would the railroads going to Port Richmond and New York tidewater be potentially competitive? A. They would.

Q. You have no doubt about that? A. No, not at all.

Q. And they would be substantially competitive, too? A. Yes.

Q. Have you read the testimony of Mr. Auch, in connection with the through routes beyond Wilmington, and have you noticed what he said as to the Wilmington and Northern? A. I have.

Q. Have you anything to say in regard to that portion of the testimony and to the causes that he mentioned there why more anthracite did not go that way, or, rather, chose other routes? A. His explanation was that in dealing with the P., B. & W., that is, the Pennsylvania Railroad, and the Baltimore and Ohio, he thought if the coal was tendered to them at Wilmington, they would demand the same division they now receive on that coal delivered to them at Philadelphia; also that the B. & O. and the P., B. & W. dictated the deliveries at Philadelphia, the interchange at that point, instead of at Wilmington. As a general proposition, an originating road, of any traffic, is the dominating road in settling where the interchange will be, or what the divisions will be, and that is true particularly of the anthracite roads, probably more so than any other roads in the country. There are no connections of the anthracite roads, from my observation, that have ever dictated to the anthracite roads either where the traffic will be interchanged or what the divisions will be. The anthracite roads have instead rather dominated those questions. Then again, of course, if the Wilmington

and Northern were not controlled by the Reading, the P., B. & W. or the B. & O. would not be dealing with the road at all, nor could not be going to the Wilmington and Northern to be making deliveries at Philadelphia, for the reason, of course, that the Wilmington and Northern could not do that.

Q. So that the Philadelphia and Reading could route the coal over the Wilmington and Northern, assuming that they had the facilities to carry it, if the Philadelphia and Reading so chose? A. That is another matter, I suppose. He testified, and Mr. Dice, I believe also, about the physical condition of the Wilmington and Northern.

Q. Please just answer the question.

(Question read.)

MR. REYNOLDS:—There is no testimony by Mr. Swacker which qualifies him to answer that question. His only testimony is as to the general proposition. He has not manifested the slightest knowledge of the particular proposition.

By MR. COUDERT:

Q. I might say, assuming that physically the road could carry it, your proposition is that the originating road dictates the route?

MR. REYNOLDS:—As a general proposition.

A. Yes.

By MR. COUDERT:

Q. Now applying that proposition to the Wilmington and Northern, is there any reason, so far as you know, why that should not apply? A. None.

Q. Have you read Mr. Dice's testimony? A. I have.

Q. What have you to say of his reason that the anthracite did not go in greater quantity by the Wilmington and Northern? His statement was that that was due to the physical condition of the road. A. Yes. To begin with, he explained, or Mr. Auch explained previous to that, that the Wilmington and Northern was originally conceived with the idea of handling ore to the furnaces in the neighborhood of Coatesville. Ore is a heavier loading tonnage than coal. The difficulties Mr. Dice mentions are the grades and alignments of the Wilmington and Northern, would make it a far

less desirable route to carry the coal over, from an operating standpoint. The grades and alignment that would handicap the transportation of coal over that road would far more so handicap the transportation of ore, because ore is a heavier loading commodity, providing, of course, that the direction of the grades and the traffic were relatively the same, and his explanation of the grades is that they are in both directions, so that that would cover that phase of it. A road like the Wilmington and Northern, if it were getting, or had reasonable prospects of getting, the anthracite traffic, or could move it over it that way, would naturally revise those grades and alignment so as to make operating condition economical. Of course, with them both in the same ownership it might not be done, because it would be a useless thing; but, if they were in separate ownership, the chances are that the Wilmington and Northern, or a road like it, would have brought its physical condition to the same degree of operating advantage that the Philadelphia and Reading now has to Philadelphia as to that traffic. It could easily be more competing than the other route.

Cross examination.

By MR. REYNOLDS:

Q. I understand that you began your railroad work when you were eleven years old, and continued it for twenty-four years? A. Yes.

Q. As far as I can observe, you have covered about every field in railroading there is during that twenty-four years? A. Everything but the shops.

Q. So you are a very versatile railroad man; and of late years you have been devoting your attention to the law side of railroading, have you not? A. Yes.

Q. I am a little puzzled by the five years you spent with the Interstate Commerce Commission. Does that make you forty years old? A. No, thirty-five. I did not say I worked for the railroad twenty-four years. I said I worked either for the railroads, or associated with railroad matters, for twenty-four years; that was it.

Q. I wanted to clarify that. A. That five years was included in the twenty-four.

Q. I understand that, even under your most restricted definition of the direct rail routes, there are at least five from the anthracite coal regions as a whole to New England? A. No; I said three.

Q. If I may remind you, you have not eliminated those that the Government allege are the direct routes. A. I thought you said outside of those. Yes, that is what the testimony showed.

Q. There are five altogether? A. No. I want to qualify that, too, because the Lehigh and Hudson would not be one, as I figure it, for the reason that it does not itself, as I understand it, tap any of the coal fields.

Q. Then, according to your definition, you would eliminate one of the direct rail routes which the Department for which you work alleged to be one of the three only direct rail routes to New England, would you? A. Yes.

Q. So the petition ought to be amended? A. I do not know about that. I do not know what definition was in the mind of the pleader, but, on that definition, I would say so.

By Mr. Coudert:

Q. It is a matter of railroad terminology? A. It is rather an ambiguous term, even in the railroad itself. It is used both ways.

By Mr. Reynolds:

Q. On your definition of competition, actual and potential, I understand that one railroad running from Sioux City to Chicago, and another one running from Marion, Ohio, to Chicago, both carrying hogs, are competing railroads under your definition? A. No, I did not embrace such a situation as that under my definition. It may be possible that they are, but I said I was speaking in a practical way. It may be that such a situation as that would be, but my reference was rather to carriers that either started from a common field or origin and came to a common destination, or that started from a common origin and went to a common field of destination, but not necessarily in a position to take the immediate shipment. The situation you speak of would be embraced within

that, it is true, but I did not have that in mind. There is just such a situation as that at East St. Louis. There are probably eight or ten roads there, radiating from East St. Louis like a fan, north, south and east, and all of the intervening arc, and each into bituminous coal fields, and those roads are very highly competitive one with another in the transportation of coal to St. Louis. In fact, they have been in pools and all sorts of the side issues of competition. That is involved in that Terminal Railroad Association suit out there.

Q. Then, involving a water haul, a short line railroad in Florida and another one in California, each hauling oranges to the coast, with the possibility of having them transported to the canal zone, would be in competition under your definition? A. There is that possibility, yes, but that is again a case where I did not have that kind of a case in mind. As an illustration of the kind I had more in mind, take the situation of the Old Dominion Steamship Company, out of here to Norfolk, or the Clyde Line to Savannah, each connecting with railroads there taking traffic, we will say, moving from New York to Chicago. Now different roads will take that from those steamship lines, and those roads are highly competitive one with another. The roads themselves recognize that situation in that they are in the same committees of the Carriers' Traffic Officials.

Q. As a matter of fact, I judge, from your assurance in testifying as to routes, that you are aware that the Lehigh Valley and the Pennsylvania handle their coal to New England via New York harbor, their anthracite coal? A. Yes. I think they do. That is my understanding.

Q. In connection with the New Haven, to Southern New England points? A. Some of it, and I think some of it moves by water, although I am not sure whether the Pennsylvania is still handling any water traffic out of here or not; but I think some of the coal ultimately moves by water entirely to Southern New England ports.

Q. But the Pennsylvania all-rail route to New England, you know, is via the Pennsylvania Railroad to Harlem

River transfer, and via the New Haven all-rail to Southern New England, do you not? A. I know that they do send some that way. Whether that is the general route for all of it or not, or the bulk of it, I do not know.

Q. I thought from your positive testimony that you would be aware of a detail of that sort, that all of it went that way? A. No, I am not.

Q. You are sure that some of it does, however? A. I would not even say that now, at this time, for the reason I know the New Haven have been endeavoring for some time to relieve themselves of getting traffic, especially low grade traffic, at Harlem River, and, for all I know, at this time, they may be endeavoring to send such anthracite as they get from the Pennsylvania up by way of the Poughkeepsie Bridge route. Of course, a substantial portion of the anthracite that they handle comes to them from the Ontario and Western and from the D. & H., but particularly from the Ontario and Western, and goes up via the Poughkeepsie Bridge route.

Q. That is a very direct route, is it not, the Ontario and Western? A. Yes.

Q. And the Lehigh Valley route for years has been via Harlem River transfer? A. Yes.

Q. And the Lehigh Valley route for years has been via the Harlem River transfer all-rail to New England? A. I did not know that as a matter of fact, but I suppose naturally that it was.

Q. Under your definition of competition in the anthracite carrying trade, I understand that you would class all of the following railroads as being in competition as to that anthracite transportation: The Delaware and Hudson, the Ontario and Western, the Erie, the Delaware, Lackawanna and Western, the Lehigh Valley, the Lehigh and New England, the Pennsylvania Railroad, the Philadelphia and Reading Railroad, the Central Railroad of New Jersey, the New York, Susquehanna and Western and the Wyoming and Eastern—Wilkes-Barre and Eastern? A. The Susquehanna and Western is part of the Erie. The Wyoming and Eastern is part of the Erie.

Q. Wilkes-Barre and Eastern; I misled you. A. Is that question restricted to the New England traffic, or to all anthracite traffic?

Q. All anthracite traffic. A. Oh, no. There may be local traffic on the line of one of those roads that could not possibly be competitive between two local points. In that case it could not be competitive, that traffic.

Q. Just how are those roads competitive, then? A. They certainly will not be competitive as to traffic between local stations on their lines. Now, there will be a limit to the extent they will be competitive even in traffic destined off their lines. But take traffic destined to some general territory, for instance, New England or Chicago, Ohio or Indiana; these roads would all be potentially competitive for that traffic.

Q. And from the anthracite fields to tidewater, according to your definition, every one of those roads I have enumerated would be competitive with every other one? A. Yes, they would. I will except, for instance, to some extent, those smaller roads you have enumerated like the Wilkes-Barre and Eastern. I am not clear in my mind just what the situation is as to the Wilkes-Barre and Eastern.

Q. So you cross the Wilkes-Barre and Eastern off? A. Yes.

Q. All the others are competitive between the anthracite fields and New York harbor, according to your view? A. That is not the question you asked. You said tidewater; I am assuming tidewater when destined beyond a particular port, because there might be circumstances, if your question was to the port only, which might render them non-competitive as to some traffic. You could conceive of some circumstances that would render them non-competitive as to some traffic just to the port, but if it is for transshipment by water beyond the port, then I would say they were all competitive.

Q. Then is it fair to say that those roads are not competitive to New York harbor? A. No.

Q. I want to find out your definition. A. They are as to some of the traffic.

Q. I want to get your definition down to something concrete. A. They are as to a very large portion of the traffic that they get to New York harbor.

Q. Are they competitive as to all the traffic from the coal regions to New York harbor for trans-shipment, either locally in the harber or beyond? A. I would say yes.

Q. You know that Coatesville is on the Wilmington and Northern Railroad and local to that line. A. I do not think it is local to it.

Q. It is also on the Pennsylvania Railroad? A. Yes.

Q. It is not, however, on the Philadelphia and Reading? A. No.

Q. And the industry there is, in the main, iron and steel? A. Yes.

Q. A large consumer of ore? A. Yes.

Q. You have no knowledge of the relations of the Philadelphia and Reading Railway, the Baltimore & Ohio Railroad and the Pennsylvania Railroad as to the interchange and routing of anthracite between those three systems, have you? A. Not in a particular way, but I have in a general way, from association. I could not probably identify the exact source of information at this time, but I have in a general way a knowledge concerning it.

Q. But not a particular knowledge? A. No.

MR. REYNOLDS:—I would like to note on the record that W. G. Besler has been elected President of the Central Railroad Company of New Jersey, and Charles F. Huber, President of the Lehigh and Wilkes-Barre Coal Company.

Government's counsel offer in evidence excerpt from House Document 1442, 62d Congress, 3d Session, entitled **"Increase in Prices of Anthracite Coal following Wage Agreement of May 20, 1912,"** from pages 126 and 127, as follows:—

"The great anthracite coal reserve for the future lies in the southern field, but it is located at a much greater

depth than in either the nothern or middle basin, and owing to numerous other adverse physical conditions can not be mined except at a decidedly greater cost. The majority of the shafts in this region are from 1,000 to 1,500 feet in depth, and one shaft at least has already been sunk to a depth of 1,800 feet.

"A general conception of the supply available from each of these fields and from the region as a whole may be gained from the following table. This table, which is drawn from a paper prepared by Mr. William Griffith and E. T. Conner,* mining engineers, represents an average of two independent estimates, made, respectively, by Mr. A. D. W. Smith and Mr. William Griffith, both of whom were associated with the second geological survey of Pennsylvania, in the course of which an exhaustive study of the anthracite field was made. The estimate has been revised by Mr. Griffith to bring it completely up to date.

* Our Anthracite Coal Supply and its Conservation, by William Griffith and Eli T Connor. Reprinted from original communications, Eighth International Congress of Applied Chemistry, Vol. XXIV, page 92.

ESTIMATE OF ANTHRACITE PRODUCTION AND RESERVE, 1912—PENNSYLVANIA.

	Wyoming and Lackawanna region.	Lehigh region.	Schuylkill and Mahanoy region.	Total.
Area.....square miles	176	45	263	484
Approximate original content, long tons.....	5,600,000,000	1,850,000,000	11,900,000,000	19,350,000,000
Approximate produced to Jan. 1, 1912, long tons.....	1,054,000,000	312,000,000	634,000,000	2,000,000,000
Approximate one-fourth wasted and three-fourths left in old mines to Jan. 1, 1912, long tons.....	1,695,500,000	523,500,000	1,048,500,000	3,267,500,000
Approximate reserve coal in unmined area, long tons.....	2,850,500,000	523,500,000	10,217,500,000	14,082,500,000
Approximate future production based on saving of 25 per cent. from old mines.....long tons	423,800,000	130,800,000	262,400,000	817,000,000
50 per cent. from new mines..... do	1,425,400,000	502,400,000	5,108,200,000	7,036,000,000
Total available..... do	1,849,200,000	633,200,000	5,375,600,000	7,858,000,000
Production, 1910..... do	44,600,000	10,000,000	20,800,000	75,400,000
Duration of available supply at present rate of exhaustion.....years	41	63	260	104
Estimated ultimate waste of mining, long tons.....	2,696,800,000	904,800,000	5,890,400,000	9,492,000,000

"This estimate of the probable duration of the supply of anthracite is based upon the present rate of exhaustion, which may be either increased or diminished, and upon present methods of mining, which will undoubtedly be considerably improved in the future. These factors, of course, render any prediction of the ultimate life of the mines liable to error, but under any assumption that may be made it is certain that the duration of the supply is practically limited to the lifetime of a few generations.

"The table above quoted indicates that the past production has removed from the field about twenty-two per cent. of the total estimated minable supply. The mining of the past has, however, removed not only the greater part of the coal from the most accessible and cheaply mined veins, but has also much more rapidly exhausted the regions in which the physical conditions are most favorable to cheap mining. As a result the effect on the cost at which the coal of the future can be mined is more seriously affected than would be the case if one-fifth of the total supply had been uniformly removed from the different regions and from the different beds of coal.

"The degree in which the Wyoming and Lehigh regions, in which the physical conditions are most favorable to cheap production, have been exhausted as compared with the Schuylkill region is shown in the following table:*

PERCENTAGES OF PRODUCTION AND RESERVE.

REGION	PER CENT. OF					
	Area.	Total production to 1912.	Original content.	Annual production.	Available reserve.	Total reserve.
Wyoming	36.3	52.2	28.4	59.0	23.5	25.0
Lehigh	9.3	15.6	9.6	13.2	8.0	8.5
Schuylkill	54.4	32.2	62.0	27.8	68.5	66.5

The Wyoming and Lehigh regions, it will be seen, although originally containing only 38 per cent. of the total supply, had up to 1912 contributed approximately 68 per cent. of the anthracite coal. As a result it is estimated that

* Our Anthracite Coal Supply and its Conservation, by William Griffith and Eli T. Conner. Reprinted from original communications Eighth International Congress of Applied Chemistry, Vol. XXIV, page 93.

at the present rate of production the Wyoming region will be completely exhausted in 41 years and the Lehigh region in 63 years. Approximately two-thirds of the future supply of anthracite must, therefore, be mined from the Schuylkill region under the relatively adverse conditions existing there.

"Up to the present time the Wyoming and Lehigh regions are still producing more than their proportionate share of the total output, as is shown by the following figures, giving the amount and per cent of shipments from each region from 1890 to 1911."

Government's counsel offer in evidence extract from pamphlet issued by the United States Geological Survey, entitled **"The Production of Coal in 1912,"** page 24, as follows:—

"It is usual to consider that for every ton of coal that has been mined and marketed, a half ton has been lost, through necessary waste in mining. In the early history of mining in both the anthracite and bituminous regions the percentage of loss was considerably more than half a ton for every ton mined. In the anthracite region it was estimated by the Anthracite Waste Commission, which made its report in 1893, that the recovery was only 40 per cent., or, in other words, a ton and a half was lost for every ton sold. At the present time the recovery in the anthracite region is from 60 to 65 per cent., so that conditions are reversed, and for every ton of coal lost a ton and a half is sold or used."

Government's counsel offer in evidence another extract from the same pamphlet, page 7, as follows:—

"WASHED COAL.—The production of anthracite in Pennsylvania includes an appreciable quantity of usable fuel recovered from the old culm banks by washeries, and the unsightly monuments to the wasteful methods of early times are disappearing from the landscape in the anthracite region. The quantity of coal recovered in the twenty-three years since the first washery was constructed (in 1890) has amounted to about 55,000,000 long tons, considerably more than the total production of anthracite at the beginning of the period. In 1912 the washery product amounted to 4,165,288 long tons. In addition to the coal

recovered from the culm banks, 85,722 long tons in 1912, and 94,647 long tons in 1911, were recovered from the bottom of Susquehanna River by dredges."

Government's counsel offer in evidence other extracts from the same pamphlet, page 176 and page 180, as follows:—

(Page 176.) "Nowadays there is a market for almost any grade of anthracite that will burn. No more coal goes to the culm banks except for temporary storage and subsequent recovery by washeries. The old culm banks themselves are contributing their share to the total production, and these unsightly monuments to former waste are rapidly disappearing. Even the waste from the culm-bank washeries is being made to serve a useful purpose, as it is flushed into the mines and partly fills old workings, where it cements together and furnishes supports to the roof when the coal previously left for pillars is removed. This utilization of the waste prevents, too, the injury to farm lands in the valleys, a serious cause of complaint among the farmers when, as in earlier days, the waste from the washeries was spread over their lands in flood seasons.

"The recovery from the culm banks and the output of small sizes from freshly mined coal constitute about 40 per cent. of the total quantity of anthracite sent to the market. In 1912, out of total shipments amounting to 65,201,253 long tons, 25,690,541 long tons, or 39.4 per cent., consisted of pea and smaller sizes, while the prepared or domestic sizes, including a relatively small quantity of lump or steamboat, made up 60.6 per cent. Of the total of 25,690,541 long tons of small coal, the culm bank washeries contributed 3,155,150 tons, or 12.3 per cent."

(Page 180.) "A considerable portion of this increase in the consumption of small sizes has been due to the operation of the washeries in recovering the usable fuel from the old culm banks in the anthracite region. The first washery was installed in 1890, and 41,600 long tons of coal thus recovered were shipped in that year. In 1907 this recovery had increased to 4,391,082 tons. About the time that washeries were introduced to recover this small coal from the culm banks they were also installed at the break-

ers, with the result that the small sizes, instead of being thrown upon the culm banks, were added to the daily production.

Government's counsel offer in evidence excerpt from House Document 1442, above referred to, **"Increase in Prices of Anthracite Coal,"** page 45, as follows:—

"Causes Which Have Reduced Cost of Production.

"Opposed to these factors which have tended to increase the cost of production, there have been many improvements in the method of working and increasing the output of the properties, which have in turn served to reduce costs. The improvements in the methods of working have been directed not only to the perfection of mechanical contrivances, but to the better and more effective organization of the entire mining system.

"Notable advances have been made in the economy and efficiency of the devices used in the breakers for cleaning and preparing the coal, in the methods of haulage, and in the arrangements for removing water from the mines. At the same time the substitution of vertical shafts for inclined slopes has greatly increased the area that can be worked simultaneously, and has at the same time decreased materially the cost of repairs and maintenance. The use of mechanical methods of haulage has very materially increased the area that can be worked from a single shaft and hence has resulted in greatly increasing the annual output that can be obtained from each operation. These improvements of method are simply to be regarded as instances of a very large number of advances in the technique of the industry. As evidencing their importance with regard to the cost of production, the following quotation from the annnual report for 1908 of Mr. E. B. Thomas, as president of the Lehigh Valley Coal Company, is of interest:

"The improvements already made, together with those now in progress, tend not only to offset the increased expense of mining incident to the greater depth of the

workings and the longer underground haul, but also result in a greater percentage of prepared sizes of coal, the same having increased 9.38 per cent. in the last five years.*

Government's counsel offer in evidence **letter of May 4th, 1914, Geo. Otis Smith, Director, United States Geological Survey,** to G. Carroll Todd, Assistant to Attorney General, as follows:

"DEAR MR. TODD:—With reference to your memorandum requesting certain information concerning the statistics of an anthracite coal production, published by the United States Geological Survey:

"As stated definitely in the coal reports issued annually, the statistics covering the anthracite coal production were from 1897 to 1908, inclusive, prepared for the United States Geological Survey by the late William W. Ruley, Chief of the Bureau of Anthracite Coal Statistics, Philadelphia. Prior to Mr. Ruley's incumbency, the statistics were compiled by Mr. John H. Jones, his predecessor. In their work for the Geological Survey both Mr. Jones and Mr. Ruley acted independently of the anthracite companies, as agents of this Bureau, and reports were submitted to them by the operators on blanks printed by the Survey, correspondence in connection with the work being carried on under the Government frank. After Mr. Ruley's death, early in 1910, the blanks and tabulation sheets were returned from his office in Philadelphia to the Geological Survey, and are now in its possession. The methods employed by Messrs. Ruley and Jones are identical with those now used by Mr. Parker in the preparation of his reports. Statements of production are made by the anthracite companies, and are not the result of any independent or exceptional investigation by the Survey.

"In the Survey's earlier reports of coal production the average value per ton given by Messrs. Jones and Ruley is not the quotient obtained by dividing the total value by the

* Annual Report of the Lehigh Valley Railroad Company, 1908, page 48.

total production for the reason that in those earlier days the colliery consumption, consisting of culm and waste, was not considered as having any market value. During the past ten or twelve years, however, an arbitrary value of from 20 to 50 cents per ton has been placed on this colliery consumption, because anthracite of any size whatever has now a market value.

"In the chapter on coal production, pages 509 and 510, of the report, Mineral Resources of the United States, 1905 (and in subsequent years when shipments by railroads were given), the bituminous records were compiled from the reports of the producing companies, and included the names of the transportation lines over which the product was shipped. The companies are the initial companies only, and the tonnage reported does not indicate the total quantity of coal handled by the transportation systems.

"The table of shipments of anthracite by railroads, on page 511 of the report for 1905, was as stated, furnished by Mr. Ruley. The employment of Mr. Ruley and of his predecessor, Mr. Jones, was found to be advantageous to the Geological Survey because they were able from their records, as chiefs of the Bureau of Anthracite Coal Statistics, to check the returns made to them, and to supply from those records approximate statements of operators who had failed to report to the Geological Survey. At the present time the Bureau of Anthracite Coal Statistics supplies to the Geological Survey records of this character when from changes of ownership, or other circumstances, it has been impossible to secure detailed reports from the companies themselves.

"A sample of the blank used in the collection of anthracite statistics is attached hereto. This style of blank has been in use for about twenty years, with only slight modifications. It will be observed that practically all of the information published in the Survey's reports on anthracite production is called for by this blank.

"Yours very truly,

"GEO. OTIS SMITH,

"*Director*

"Inclosure."

The blank form enclosed with the foregoing letter is as follows:—

"No. Confidential.

DEPARTMENT OF THE INTERIOR

United States Geological Survey

Production of Anthracite Coal in

Please fill out replies to the following queries and return as promptly as possible in the enclosed envelope, which requires no postage. All replies are held confidential, only State and county or district totals being published.

Name of breaker or washery

Names of mines included in this report

State County

Name of operator

P. O. address

Disposition of product:	Long tons.
Loaded for shipment	
Sold to local trade or used by employees	
Used at mines for steam and heat	
Total	

Total selling value of product at mines $

(In "Total selling value" please include value of coal sold locally and estimated value of that used at colliery.)

	NAME OF ROAD.	TONNAGE.
Railroads over which product was shipped		

Total number of full days mine or washery was in operation during the year. (Parts of days should be reduced to equivalent in full days)

Average number of employees during the year, including all persons connected directly with the mine or washery

Superintendent and Manager.

Please reply carefully to queries on the reverse side of this card. (over)

(On reverse side)

If the properties reported hereon were idle because of strikes or suspensions last year, please state how many men were affected and how many days they were idle.

Ans. Number of men idle

Number of days idle by reason of strikes or suspensions

Date of strike:

From to

SHIPMENTS DIVIDED ACCORDING TO SIZES.

Lump
Broken
Egg
Stove
Chestnut
Pea
Buckwheat No. 1
Buckwheat No. 2
Buckwheat No. 3
Screenings

Total

NOTE:—In making above report according to sizes, please give only coal loaded at mines for shipment, and NOT coal used at mines for steam or sold to local trade. (over)."

MR. GORDON:—With reference to the table of rates in the exhibit put in by Mr. Auch at page 561, of the defendants' evidence, I would like to make a reference to the following decisions of the Interstate Commerce Commission, which ought to be considered as part of the record as though fully spread upon the record, although it is not necessary to spread them at length thereupon:

Meeker vs. *Lehigh Valley R. R. Co.*, reported in 21 I. C. C., 29, decided June 8th, 1911.

Meeker vs. *Lehigh Valley R. R. Co.*, reported in 23 I. C. C., 480, decided May 7th, 1912.

Lehigh Valley R. R. Co. vs. *U. S.*, decided by U. S. Commerce Court, the opinion appearing in 204 Fed., 986.

Marion Coal Co. vs. *D. L. & W. R. R. Co.*, 24 I. C. C., 140, decided June 8th, 1912.

Marion Coal Co. vs. *D. L. & W. R. R. Co.*, 25 I. C. C., 14, decided October 19th, 1912.

Government's counsel offer in evidence statement showing the railroad affiliations of coal companies alleged to be independent in defendants' evidence, page 867.

MR. REYNOLDS:—Defendants enter no objection to the statement now offered by the Government, but desire to call attention to the fact that it does not represent the present situation, as the reference to Defendants' Exhibit 13 closes with the calendar year 1911.

(The statement offered, marked **"Government's Exhibit 83, C. H. G.,"** is as follows):—

"STATEMENT SHOWING RAILROAD AFFILIATIONS OF COMPANIES ALLEGED TO BE 'INDEPENDENT' IN DEFENDANTS' EXHIBIT, DEFENDANTS' EVIDENCE, RECORD, PAGE 867:

	Name of Operator.	Tonnage in 1911 as given in Defendants' Exhibit.	Railroad affiliations and source of information.
1.	Alden Coal Co.....	274,358	Sold output to L. V. Coal Co. (Def. Ex. 13).
2.	A. Pardee & Co.....	541,253	Sold output to L. V. Coal Co. under 65% contract. (Old Reading Rec. Vol. 2, p. 634).
3.	Alliance Coal Co.....	120,263	Stock owned by Lehigh & Wilkes-Barre Coal Co. and L. C. & N. Co. (Admitted in defendants' answers).
4.	Buck Run Coal Co.....	214,317	Sold output to P. & R. C. & I. Co. under 65% contract. (Old Reading Rec. Vol. 2, p. 612). Leases lands from P. & R. C. & I. Co. under covenant to ship output over P. & R. Railroad (Gov't. Ev. p. 397). Still sells to Reading Coal Co. (Def. Ex. 13).
5.	Clear Spring Coal Co.....	40,652	Sold output to D. L. & W. R. Co. under 65% contract. (Old Reading Rec. Vol. 2, p. 638). Still sells to D. L. & W. R. Co. (Def. Ex. 13).
6.	C. M. Dodson & Co.....	334,630	Leases lands from Lehigh & Wilkes-Barre Coal Co. under covenant to ship output over Central R. R. (Gov't. Ev. p. 363).
7.	Dolph Coal Co. Ltd.....	141,914	Sells output to Penna. Coal Co. (Def. Ex. 13). Formerly bound to do so by 65% contract. (Old Reading Rec. Vol. 2, 636).

1909

	Name of Operator.	Tonnage in 1911 as given in Defendants' Exhibit.	Railroad affiliations and source of information.
8.	Dodson Coal Co.	209,178	Leases its coal lands from Reading Coal Co. under covenant to ship output over Reading Railroad. (Gov't. Ev. p. 397).
9.	Elliott, McClure & Co.	245,858	Sells output to D. L. & W. R. Co. (Def. Ex. 13).
10.	Excelsior Coal Co.	250,697	Sells output to Reading Coal Co. (Def. Ex. 13). Leases its coal lands from Reading Coal Co. under covenant to ship over Reading Railroad (Gov't. Ev. p. 395) and from Fulton Coal Co. controlled by Reading Coal Co. (Gov't. Ev. p. 396).
11.	Enterprise Coal Co.	206,176	Sells output to Reading Coal Co. (Def. Ex. 13), Gov't. Ex. 63). Leases its lands of Reading Coal Co. and Fulton Coal Co. under covenant to ship output over Reading Railroad. (Gov't. Ev. pp. 395-396).
12.	Evans Colliery Co.	6,942	Sold output to Lehigh Valley Coal Co. under 65% contract. (Old Reading Rec. Vol. 2, p. 634).
13.	Forty Fort Coal Co.	572,810	A subsidiary of the Temple Iron Co. Sold output to Lehigh Valley Coal Co. under 65% contract. (Old Reading Rec. Vol. 2, p. 634).
14.	Green Ridge Coal Co.	110,180	Sold output to Hillside Coal & Iron Co., a subsidiary of the Erie R. Co. under 65% contract. (Old Reading Rec. Vol. 2, p. 636).

	Name of Operator.	Tonnage in 1911 as given in Defendants' Exhibit.	Railroad affiliations and source of information.
15.	George F. Lee Coal Co.....	91,470	Sold output to D. L. & W. R. R. under 65% contract. (Old Reading Rec. Vol. 2, p. 638).
16.	G. B. Markle Co.....	1,121,164	Def. Ex. 13. Output sold by Lehigh Valley Coal Co. under exclusive sales agency contract. (Old Reading Rec. Vol. 3, p. 312; Vol. 5, p. 1101).
17.	Gorman & Campion.....	21,993	Leases lands from Reading Coal Co. under covenant to ship output over Reading Ry. (Gov't Ev. p. 395).
18.	Jermyn Coal Co.....	586,582	Sold output to N. Y. Sus. & Western Ry. Co. under 65% contract. (Old Reading Rec. Vol. 2, p. 637). Still sells to N. Y. Sus. & Western Ry. Co. (Def. Ex. 13).
19.	John Davis Coal Co.....	30,377	Leases lands from Reading Coal Co. under covenant to ship output over Reading Ry. (Gov't. Ev. p. 395).
20.	Lehigh Coal & Navigation Co.	615,143	One of the defendants in this suit.
21.	Moosic Mountain Coal Co...	194,088	Sells its output to Scranton Coal Co. (Def. Ex. 13), all of whose stock is owned by the N. Y., Ontario & Western R. Co. (Old Reading Rec. Vol. 3, p. 200).
22.	Mt. Jessup Coal Co. Ltd.....	235,713	Sells its output to Scranton Coal Co. (Def. Ex. 13).
23.	Mt. Lookout Coal Co.....	309,922	Sells its output to Lehigh Valley Coal Co. (Def. Ex. 13).

	Name of Operator.	Tonnage in 1911 as given in Defendants' Exhibit.	Railroad affiliations and source of information.
24.	Moses Neyer	5,405	Leases lands from Lehigh C. & N. Co. with covenant to ship output over Central R. R. (Gov't. Ev. p. 258).
25.	Maryd Coal Co	214,711	Leases lands from Lehigh C. & N. Co. with covenant to ship output over Central R. R. (Gov't. Ev. p. 258).
26.	Mill Creek Coal Co	119,833	Sells output to Lehigh Valley Coal Co. (Def. Ex. 13).
27.	Mt Hope Coal Co	80,275	Leases lands from Reading Coal Co. under covenant to ship output over Reading Ry. (Gov't. Ev. p. 395).
28.	Nay Aug Coal Co	78,142	Sold output to Hillside Coal Co., a subsidiary of the Erie R. R. under 65% contract. (Old Reading Rec. Vol. 2, p. 636).
29.	North End Coal Co	32,696	Sold output to D. L. & W. R. Co. under 65% contract. (Old Reading Rec. Vol. 2, p. 638).
30.	Price-Pancoast Coal Co	624,821	Sells output to Scranton Coal Co. (Def. Ex. 13).
31.	Peoples' Coal Co	115,469	Sold output to D. L. & W. R. Co. under 65% contract. (Old Reading Rec. Vol. 2, p. 638). Still sells output to D. L. & W. R. Co. (Def. Ex. 13).
32.	Plymouth Coal Co	281,607	Sells output to D. L. & W. R. Co. (Def. Ex. 13).

	Name of Operator.	Tonnage in 1911 as given in Defendants' Exhibit.	Railroad affiliations and source of information.
33.	Parrish Coal Co.....	270,435	Leased lands from Lehigh & Wilkes-Barre Coal Co. with covenant to ship over Central R. R. (Gov't. Ev. p. 470). Bound by 65% contract with Lehigh & Wilkes-Barre Coal Co. (Old Reading Rec. Vol. 2, p. 629). Now owned by Lehigh & Wilkes-Barre Coal Co. (Gov't. Ev. p. 395).
34.	Pine Hill Coal Co.....	498,622	Leases lands from Reading Coal Co. under covenant to ship output over Reading Ry. (Gov't. Ev. p. 395). Sells output to Reading Coal Co. (Gov't. Ex. 63). Formerly bound to do so by 65% contract. (Old Reading Rec. Vol. 2, p. 612).
35.	Red Ash Coal Co.....	208,961	Leases lands from Lehigh & Wilkes-Barre Coal Co. under covenant to ship output over Central R. R. (Gov't. Ev. p. 360). Sold output to Lehigh & Wilkes-Barre Coal Co. under 65% contract. (Old Reading Rec. Vol. 2. p. 629).
36.	Raub Coal Co.....	128,772	Sold output to Lehigh Valley Coal Co. under 65% contract. (Old Reading Rec. Vol. 2, p. 634).
37.	Sterrick Creek Coal Co.....	530,907	One of the Temple Iron Co. subsidiaries. Decree in Old Reading Case. (Gov't. Ev. p. 7).

	Name of Operator.	Tonnage in 1911 as given in Defendants' Exhibit.	Railroad affiliations and source of information.
38.	St. Clair Coal Co.....	324,685	Leased lands from Reading Coal Co. under covenant to ship output over Reading Ry. (Gov't. Ev. p. 395). Sold output to Reading Coal Co. (Old Reading Rec. Vol. 2, p. 612). Still sells coal to Reading Coal Co. (Gov't Ev. p. 337; Def. Ex. 13).
39.	West End Coal Co.....	712,631	Leased Coal lands from Lehigh & Wilkes-Barre Coal Co. with covenant to ship output over Central Railroad. (Gov't. Ev. p. 363). Sold output to Lehigh & Wilkes-Barre Coal Co. until December, 1912. (Def. Ex. 13).
40.	Wolf Coal Co.....	58,234	Sells output to Lehigh Valley Coal Co. through Coxe Bros. & Co. Inc. (Ans. of Lehigh Valley Coal Co. to Question No. 57, I. C. C. Docket No. 4914).
41.	White & Co.....	21,949	Leases lands from Reading Coal Co. under covenant to ship output over Reading Ry. (Gov't. Ev. p. 395).
	Total.....	13,783,835	

Total number of coal companies listed as 'independent' in defendants' exhibit..... 116
Total tonnage in 1911..... 22,479,394"

Government's Counsel offer the following statement, furnished by Counsel for Lehigh and Wilkes-Barre Coal Company:

LEHIGH AND WILKES-BARRE COAL COMPANY.

STATEMENT SHOWING THE AVERAGE PRICE RECEIVED FOR COAL SOLD AT NEW YORK TIDE WATER FOR EACH SIZE AND FOR ALL SIZES FROM 1898 TO 1913.

YEAR.	LUMP AND STEAMER.	BROKEN.	EGG.	STOVE.	CHEST.	PEA.	BUCK. No. 1.	BUCK. No. 2.	BUCK. No. 3.	TOTAL.
1898	3.658	3.278	3.509	3.727	3.381	2.281	2.005	2.616	.....	3.332
1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1900	3.363	3.266	3.666	4.040	4.040	2.396	2.200	1.455	.....	3.527
1901	3.530	3.481	4.012	4.288	4.320	2.492	2.217	1.625	.....	3.775
1902 & 1903	3.939	3.983	4.552	4.720	4.600	2.726	2.200	1.902	.....	4.168
1904	.....	4.252	4.735	4.779	4.737	2.942	2.450	.....	.....	4.345
1905	4.987	4.214	4.734	4.757	4.769	2.751	2.449	.....	1.250	4.332
1906	4.800	4.198	4.833	4.846	4.866	2.776	2.450	1.795	.....	4.361
1907	.....	4.194	4.755	4.750	4.774	2.765	2.450	1.806	.....	4.369
1908	4.800	4.190	4.739	4.767	4.785	3.004	2.477	1.950	1.450	4.452
1909	4.800	4.198	4.745	4.754	4.789	3.201	2.450	.....	1.450	4.502
1910	.....	4.202	4.730	4.756	4.797	3.152	2.450	1.964	.....	4.539
1911	.....	4.201	4.708	4.724	4.850	3.070	2.512	1.950	.....	4.487
1912	.....	4.229	4.922	4.920	5.178	3.149	2.649	1.720	.....	4.585
1913	.....	4.441	5.040	5.032	5.309	3.451	2.700	2.200	1.694	4.801

NOTE.—Years 1898 to 1901, year ends December 31.
Balance years June 30.

Government's Counsel offer the following table from the same source:

LEHIGH AND WILKES-BARRE COAL COMPANY.

STATEMENT SHOWING THE AMOUNT OF EACH SIZE OF ANTHRACITE COAL SOLD AT NEW YORK TIDE WATER AND THE TOTAL OF ALL SIZES FROM 1898 TO 1913.

YEAR.	LUMP AND STEAMER.	BROKEN.	EGG.	STOVE.	CHEST.	PEA.	BUCK. No. 1.	BUCK. No. 2.	BUCK. No. 3.	TOTAL.
1898	3872	132947	177790	171500	126074	112558	8301	3926	.....	736968
1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1900	4862	242713	243248	279651	146896	155809	2926	4048	.....	1080153
1901	3071	265809	319771	372203	160130	211854	1527	1063	.....	1335428
1902 & 1903	4526	325848	363816	394437	325325	259064	386	601	.....	1674003
1904	.....	262273	380236	414742	235134	276163	4316	.....	.....	1572864
1905	194	268891	363555	416054	255688	242063	8834	1306	.....	1556585
1906	261	236750	320175	370723	235585	233510	20891	615	.....	1418510
1907	391	263317	401006	416516	292515	207091	18985	5734	.....	1605555
1908	121	240615	414518	452468	307974	164200	29871	1203	184	1611154
1909	244	199158	369099	367166	259314	98805	32630	.....	442	1326858
1910	.....	191895	356768	294460	251000	62987	20042	1138	.....	1178290
1911	.....	254527	329796	280981	236491	70734	16320	7890	.....	1196739
1912	.....	254823	372614	294474	243707	156338	22537	.....	2952	1347445
1913	.....	260795	488947	403824	296000	122109	14584	12403	13747	1612409

NOTE:—Years 1898 to 1901, Year December 31.
Balance Years June 30.

Government's Counsel offer the following table, from the same source:

LEHIGH AND WILKES-BARRE COAL COMPANY.

STATEMENT SHOWING THE AVERAGE PRICE RECEIVED AT MINES FOR EACH SIZE OF ANTHRACITE COAL AND FOR ALL SIZES TAKEN TOGETHER IN EACH YEAR FROM 1898 TO 1913.

YEAR.	LUMP AND STEAMER.	BROKEN.	EGG.	STOVE.	CHEST.	PEA.	BUCK. No. 1.	BUCK. No. 2.	BUCK. No. 3.	TOTAL.
1898										
1899										
1900										
1901	2.022	1.802	2.169	2.522	2.369	1.145	.779	.351		1.797
1902	2.053	1.983	2.49	2.763	2.694	1.295	.842	.436	.107	2.006
1903										
1904	2.784	2.656	3.291	3.29	3.265	1.702	1.325	2.768	.25	2.577
1905	2.677	2.784	3.221	3.283	3.273	1.638	1.262	.665	.248	2.525
1906	2.516	2.727	3.213	3.254	3.272	1.553	1.232	.689	.248	2.488
1907	2.50	2.717	3.302	3.333	3.344	1.555	1.236	.72	.248	2.531
1908	2.50	2.692	3.212	3.258	3.275	1.561	1.248	.715	.265	2.501
1909	2.694	2.699	3.216	3.268	3.29	1.719	1.272	.808	.369	2.573
1910	2.75	2.701	3.214	3.281	3.311	1.858	1.241	.756	.364	2.552
1911	2.75	2.703	3.196	3.269	3.288	1.859	1.249	.785	.327	2.552
1912	2.75	2.70	3.198	3.267	3.362	1.846	1.297	.832	.35	2.54
1913	2.775	2.718	3.335	3.392	3.558	1.85	1.455	.986	.462	2.726
	3.00	2.936	3.501	3.519	3.764	2.117	1.48	1.029	.524	2.816

NOTE:—Years 1898 to 1901, Year December 31.
Balance of years June 30.

Government's Counsel offer in evidence the following table, from the same source:

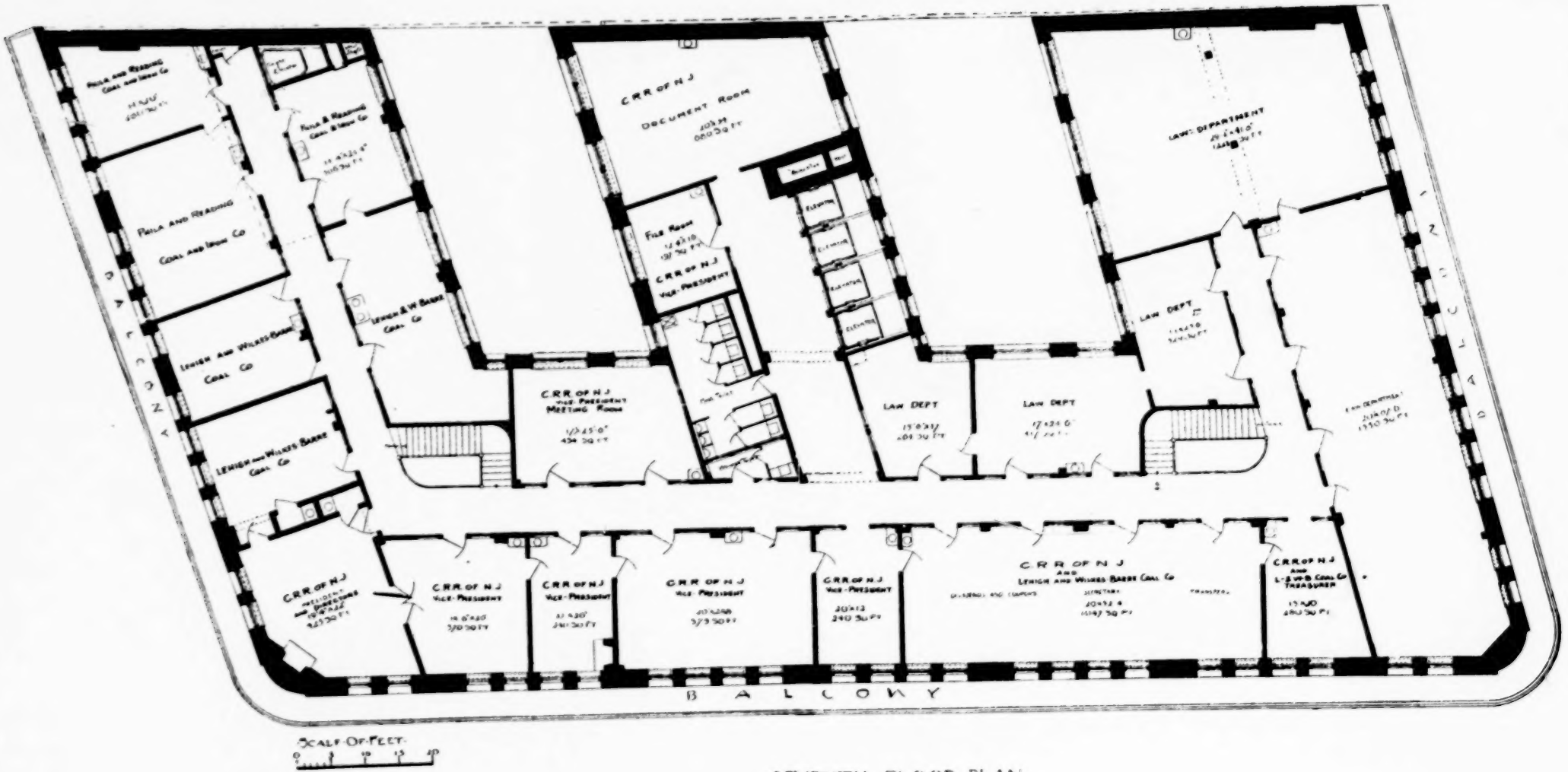
LEHIGH AND WILKES-BARRE COAL COMPANY.

STATEMENT SHOWING THE AMOUNT OF EACH SIZE OF ANTHRACITE COAL SOLD AT THE MINES AND THE TOTAL OF ALL SIZES FOR EACH YEAR FROM 1898 TO 1913.

YEAR.	LUMP AND STEAMER.	BROKEN.	EGG.	STOVE	CHEST.	PEA.	BUCK No. 1.	BUCK No. 2.	BUCK No. 3	TOTAL.
12/31—1898	124934	195780	116417	158334	[illegible]	292580	220731	43647	22469	22
" 1899	200369	240688	155566	203251	3[illegible]	368386	319721	44052	24099	1 [illegible]465
" 1900	195572	253748	168752	213524	35 225	383340	364650	88516	18704	2 [illegible]9031
" 1901	153860	319520	209738	283340	43[illegible]367	420402	461194	117965	12573	2412958
18 Mos. to 6/30, 1903	84529	448253	372038	463530	571638	501414	588123	147269	59280	3236084
6/30—1904	43356	382828	231542	410969	576227	462353	599128	154161	72513	2933077
" 1905	20644	306305	228260	428292	549081	397337	625215	153380	104030	2812544
" 1906	14144	350696	208928	390241	548809	415222	604986	125570	81439	2740035
" 1907	25062	322274	259366	402998	59[illegible]307	437784	618605	167334	164521	2991151
" 1908	28600	333248	225859	488389	66[illegible]430	464108	587253	139883	164444	3097214
" 1909	45328	298965	236660	450050	582076	466359	596047	119835	183828	2979148
" 1910	37391	303802	208157	501202	671692	465326	576202	117324	216912	3098008
" 1911	37117	346259	224494	595252	734836	477972	587873	154117	282803	3440719
" 1912	15710	312554	333250	595093	811689	510698	507555	111698	237337	3435584
" 1913	31814	374965	353656	614479	741838	474934	653876	141554	360333	3747449

NOTE.—Years 1898 to 1901, Year December 31.
Balance years June 30.

1911



SCALE OF FEET

0 5 10 15 20

SEVENTH · FLOOR · PLAN

Government's counsel offer in evidence a statement, in the form of diagram, with explanatory matter, furnished by counsel for the defendants showing the location of the offices of the Central Railroad Company of New Jersey, the Philadelphia and Reading Coal and Iron Company and the Lehigh and Wilkes-Barre Coal Company, at 143 Liberty Street, New York City, together with a statement as to the position held by the occupant of each office.

The statement referred to is as follows:—

Eleventh floor, occupied by various tenants.

Tenth floor, occupied by various tenants.

Ninth floor, occupied by various tenants.

Eighth floor, occupied by the Freight and Passenger Traffic Departments of The C. R. R. of N. J.

Seventh floor, (see diagram).

Sixth floor, occupied by Real Estate Department, The C. R. R. of N. J.—and various other tenants.

Fifth floor, occupied by General Superintendent, The C. R. R. of N. J.—and various other tenants.

Fourth floor, occupied by various tenants.

Third floor, occupied by Freight Claim Department, The C. R. R. of N. J.—and various other tenants.

Second floor, occupied by Chief Engineer, The C. R. R. of N. J., and various other tenants.

First floor, occupied by Chief Engineer, The C. R. R. of N. J., and various other tenants.

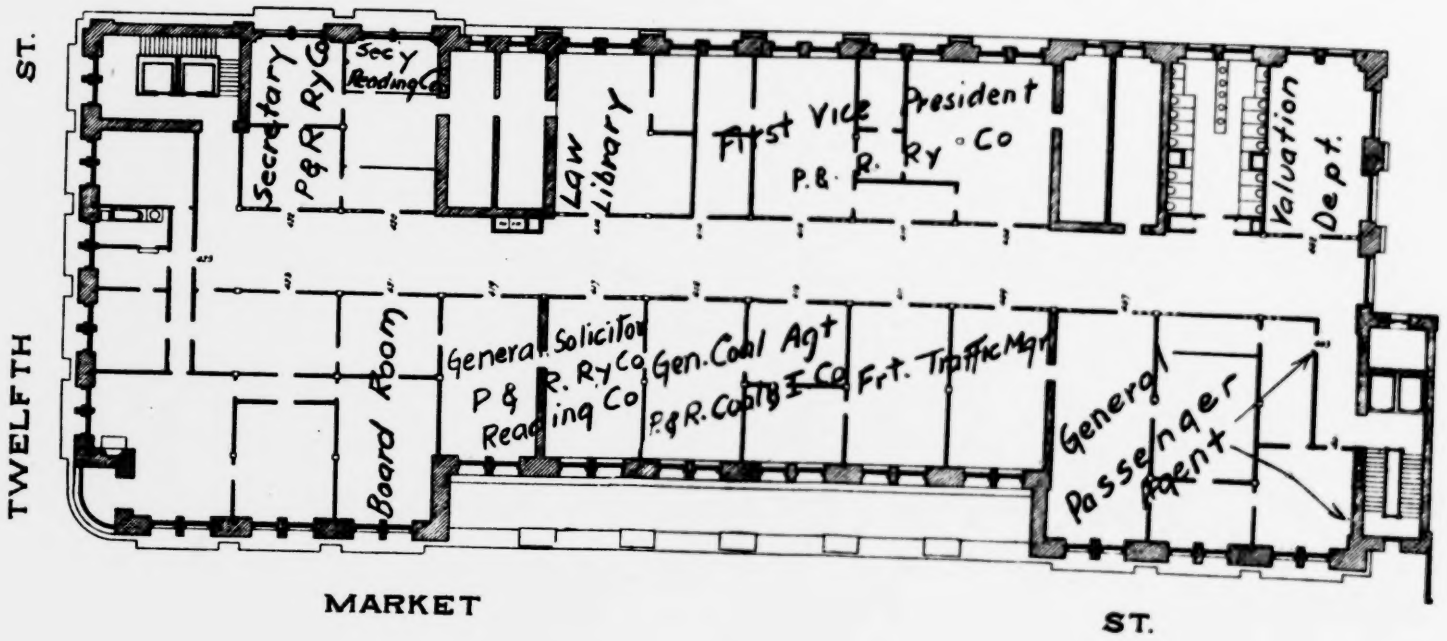
Ground floor, occupied by various tenants.

The diagram offered follows:—

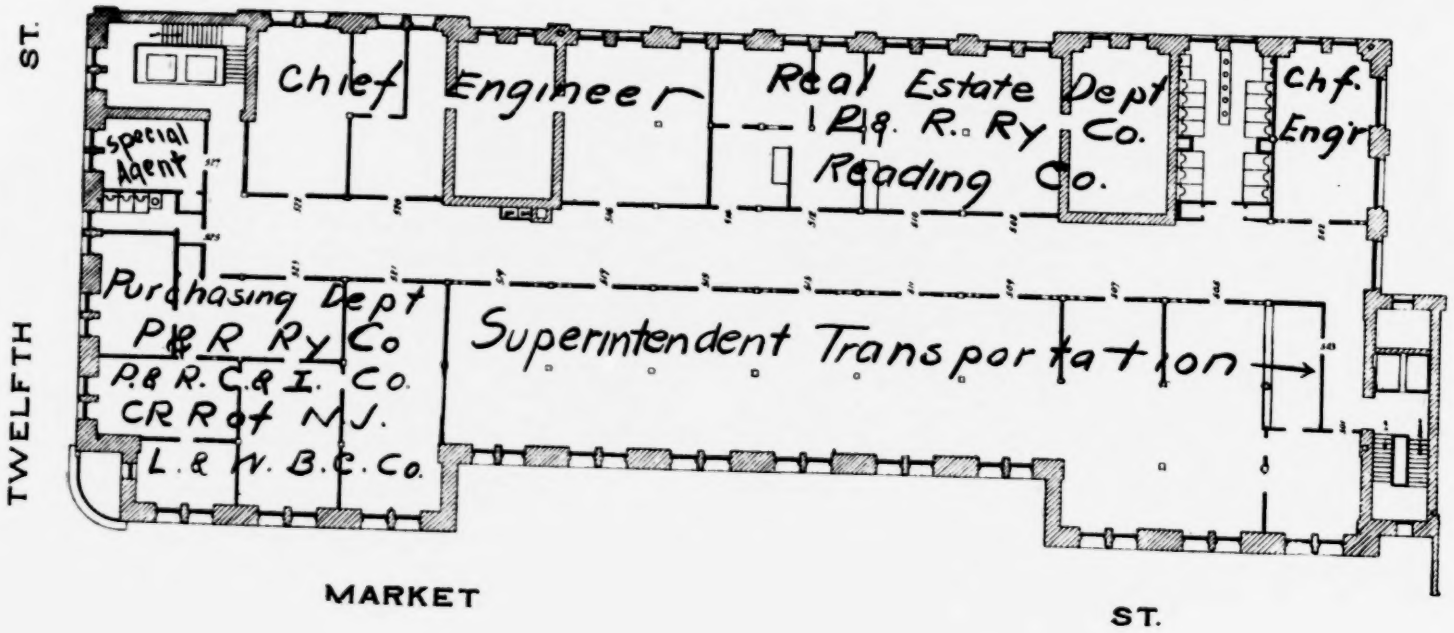
Government's counsel offer in evidence similar diagrams, furnished by the counsel for the defendants, of the offices at the Reading Terminal.

The diagrams offered follow:

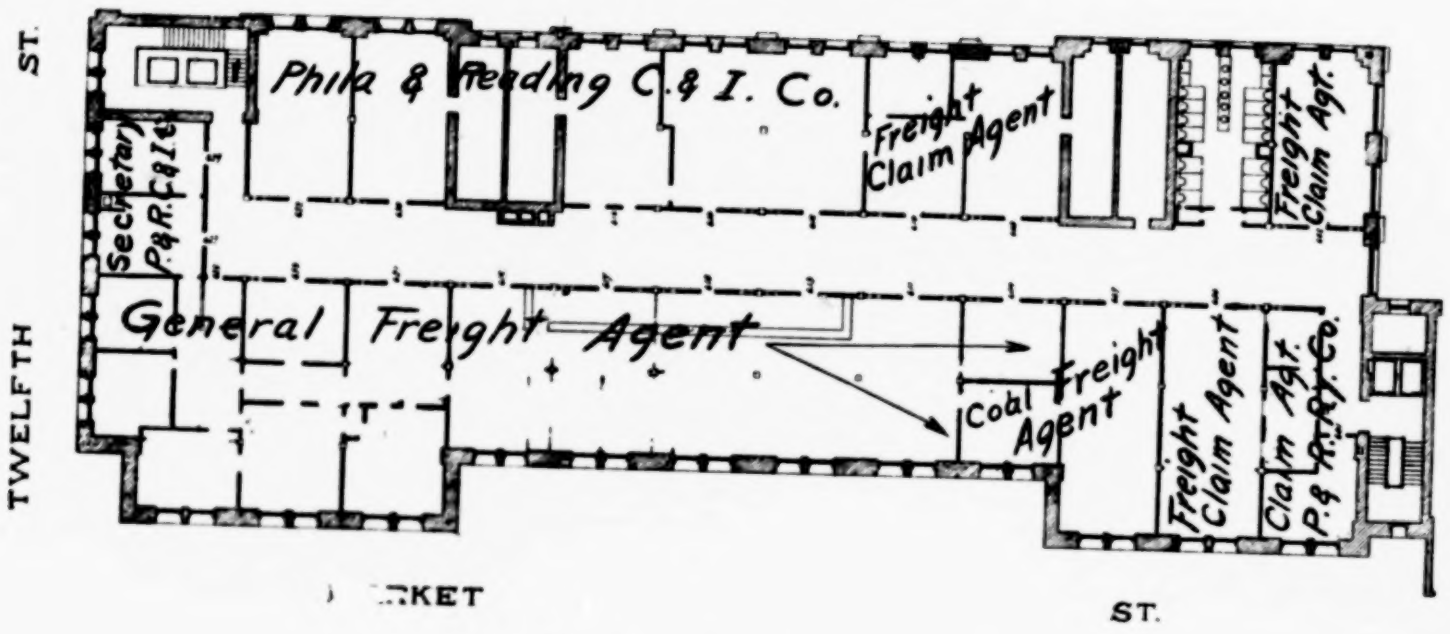
First Floor Plan


TWELFTH ST.
Secretary P & R Ry Co
Secy Reading Co
Law Library
First Vice President P. & R. Ry. Co
Valuation Dept.
Board Room
General Solicitor P & R. Ry Co Reading Co
Gen. Coal Agt P & R. Coal & I Co
Frt. Traffic Mgr
General Passenger Agent
MARKET ST.

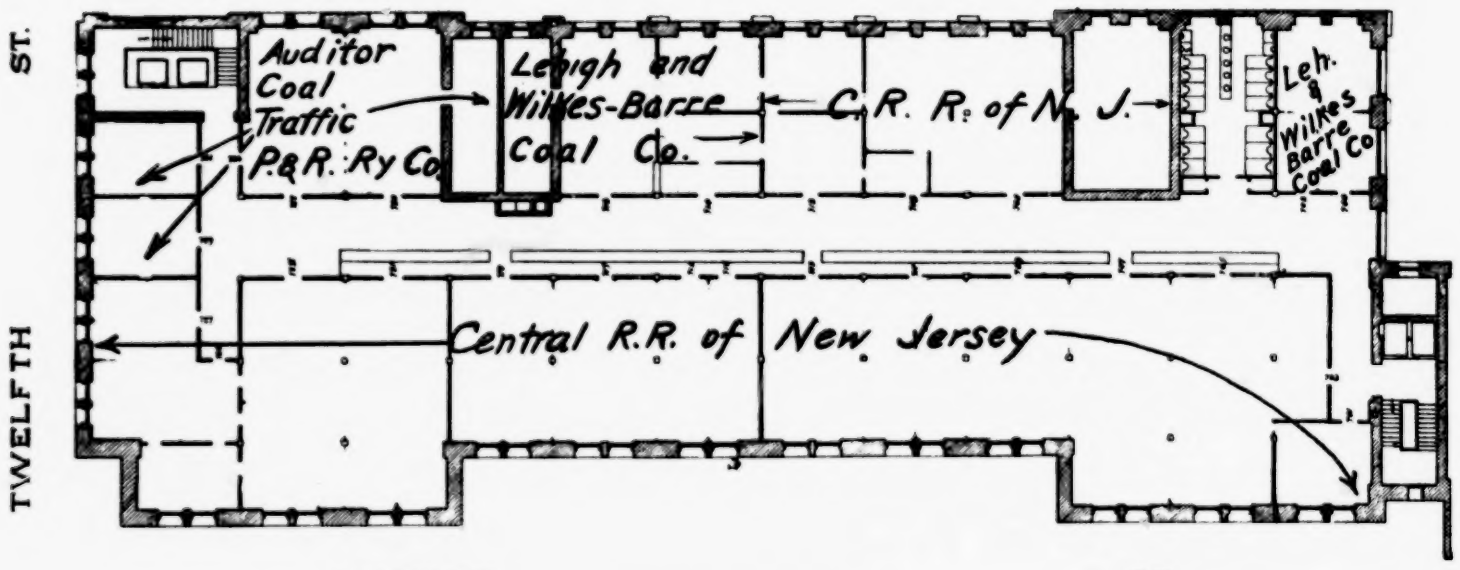
Fourth Floor Plan



Fifth Floor Plan



Sixth Floor Plan



Seventh Floor Plan.

Government's counsel offer in evidence testimony of John Woolverton, Chief Tonnage Clerk at the Port Richmond pier of the Philadelphia and Reading Railway Company, given in the Interstate Commerce Commission hearing in the Matter of Rates and Practices in the Transportation of Anthracite Coal, Docket 4914, including both the direct and cross examination, as follows:—

"**John Woolverton** was called as a witness, and having been duly sworn, testified as follows:

"*Direct examination.*

"EXAMINER SMITH:—Will you give your full name to the Reporter?

"MR. WOOLVERTON:—John Woolverton.

"EXAMINER SMITH:—What is your occupation?

"MR. WOOLVERTON:—I am Chief Tonnage Clerk at Port Richmond pier.

"EXAMINER SMITH:—Of what road?

"MR. WOOLVERTON:—The Philadelphia and Reading.

"MR. HICKEY:—I offer in evidence form 1151, Coal Report, Port Richmond, of the Philadelphia and Reading Coal and Iron Company, dated November 29th, 1912. Coal Report, Port Richmond, of the Philadelphia and Reading Coal and Iron Company, dated November 30th, 1912. Individual Car Reports, Philadelphia and Reading Railway Company, Port Richmond, dated November 29th, 1912. Individual Car Report, Philadelphia and Reading Railway, Port Richmond, dated November 30th, 1912. Form 4049, Telegraph Reports from Port Richmond, dated November 29th, 1912, Philadelphia and Reading Railway Company. Form 4049 of the Philadelphia and Reading Railway Company, Report by telegraph from Port Richmond, dated November 30th, 1912. All under one exhibit number. These reports were produced under subpoena by Mr. Hegeman.

"MR. HEEBNER:—These are reports from whom to whom?

"MR. HICKEY:—We understand they are reports prepared

in the office of the shipping agent of the Philadelphia and Reading Railway at Port Richmond. I desire to ask the witness to whom they are rendered, and the purpose of them.

"EXAMINER SMITH:—They may be received and marked.

(The documents referred to were offered and identified and received in evidence and thereupon marked "Commission's Exhibit No. 1, Witness Woolverton, received in evidence January 15, 1914" and are attached hereto.)

"MR. HICKEY:—Mr. Morgan will examine on this.

"MR. MORGAN:—In your capacity as chief tonnage clerk, what are your duties?

"MR. WOOLVERTON:—To handle tidewater anthracite and bituminous coal going over Port Richmond piers.

"MR. MORGAN:—Where is your office?

"MR. WOOLVERTON:—2821 Richmond Street.

"MR. MORGAN:—Is that at Port Richmond?

"MR. WOOLVERTON:—At Port Richmond, yes, sir.

"MR. MORGAN:—Are the demurrage records of the Philadelphia and Reading Railway compiled under your direction or by you?

"MR. WOOLVERTON:—Under my direction.

"MR. MORGAN:—You are employed by the Philadelphia and Reading Railway Company?

"MR. WOOLVERTON:—Philadelphia and Reading Railway Company.

"MR. MORGAN:—Some of the coal that finally reaches Port Richmond is set out at Wood Lane Yard, is it not?

"MR. WOOLVERTON:—I believe it is, yes, sir.

"MR. MORGAN:—Don't you know?

"MR. WOOLVERTON:—It is.

"MR. MORGAN:—Is there any demurrage assessed while such coal is at Woodlane?

"MR. WOOLVERTON:—There is not.

"MR. MORGAN:—Upon arrival at Woodlane Yard what is done with the waybills for that coal?—the waybills themselves?

"MR. WOOLVERTON:—The waybills?

"MR. MORGAN:—Yes.

"MR. WOOLVERTON:—The waybills are sent to Port Richmond. The yardmaster at Woodlane handles no waybills.

"MR. MORGAN:—Are the consignees of that coal notified upon the arrival of that coal at Woodlane?

"MR. WOOLVERTON:—They are.

"MR. MORGAN:—By what means?

"MR. WOOLVERTON:—By postal notification.

"MR. MORGAN:—Is the Philadelphia and Reading Coal and Iron Company notified in the same manner?

"MR. WOOLVERTON:—They are not.

"MR. MORGAN:—How do they receive notice of the arrival of their coal?

"MR. WOOLVERTON:—They have a representative come to Richmond each morning, and he gets his notification in abstract by means of this form 1151.

"MR. MORGAN:—On coal that has been set out at Woodlane, regardless of the length of time it might have been laying there on arrival at Port Richmond? If that coal is unloaded on the same day as it arrives, how many days' credit would you allow on such cars.

"MR. WOOLVERTON:—If it was a party working on the average time, they would get their seven days' credit.

"MR. MORGAN:—Regardless of the time it laid at Woodlane?

"MR. WOOLVERTON:—Yes, sir.

"MR. MORGAN:—I will ask you to look at form 1151 and tell us what that report consists of, to whom it is rendered. (Paper handed to witness).

"MR. WOOLVERTON:—In what way, what does it consist of?

"MR. MORGAN:—To whom is that report rendered?

"MR. WOOLVERTON:—Well, there are several copies of it made out, and the Coal and Iron Company get several, and several of them go to the Railway Company.

"MR. MORGAN:—What does that report cover, whose shipment?

"MR. WOOLVERTON:—Whose shipment does this cover?

"MR. MORGAN:—This particular one.

"MR. WOOLVERTON:—D. & L. Coal and Iron Company.

"MR. HICKEY:—On form 817, that is headed what?

"MR. WOOLVERTON:—Philadelphia and Reading Railway.

"MR. MORGAN:—What does it cover?

"MR. WOOLVERTON:—It covers bituminous coal standing at Port Richmond.

"MR. MORGAN:—Consigned to whom?

"MR. WOOLVERTON:—Consigned to individual consignees.

"MR. MORGAN:—Not to the Philadelphia and Reading Coal and Iron Company?

"MR. WOOLVERTON:—Not the Philadelphia and Reading Coal and Iron Company.

"MR. MORGAN:—How many copies of that are made?

"MR. WOOLVERTON:—There are four or five copies of that made.

"MR. MORGAN:—On November 29th, the date that that report was made out, who received copies of that report?

"MR. WOOLVERTON:—The General Coal Agent of the Coal and Iron Company, and our General Pier Foreman at Richmond, the Assistant Trainmaster, and an office copy, and one I retain.

"MR. MORGAN:—A copy goes to the general—what officer of the Coal and Iron Company?

"MR. WOOLVERTON:—General Coal Agent.

"MR. MORGAN:—None of these cars on there are consigned to the Philadelphia and Reading Coal and Iron Company?

"MR. WOOLVERTON:—None.

"MR. MORGAN:—But a copy of that report is turned over to the General Coal Agent of the Coal and Iron Company?

"MR. WOOLVERTON:—Yes, sir; a copy of this report was.

"MR. MORGAN:—On that date in question, or about that time, you state you gave a copy of that to the General Coal Agent of the Philadelphia and Reading Coal and Iron Company?

"MR. WOOLVERTON:—Yes, sir.

"MR. MORGAN:—Did he get it personally from you?

"MR. WOOLVERTON:—No; he did not get it personally.

"MR. MORGAN:—Who did?

"MR. WOOLVERTON:—Their representative got it.

"MR. MORGAN:—What was his name?

"MR. WOOLVERTON:—McDermott.

"MR. MORGAN:—Do you know his first name?

"MR. WOOLVERTON:—H. J. McDermott.

"MR. MORGAN:—And the General Coal Agent of the Coal and Iron Company is what?

"MR. WOOLVERTON:—R. J. Montgomery.

"MR. MORGAN:—That report shows the consignee?

"MR. WOOLVERTON:—Of the coal, yes, sir.

"MR. MORGAN:—The kind of coal?

"MR. WOOLVERTON:—Yes, sir.

"MR. MORGAN:—How long it had been there?

"MR. WOOLVERTON:—No, sir.

"MR. MORGAN:—Doesn't it? Or is that the number of cars. (Indicating.)

"MR. WOOLVERTON:—No, sir, that is the number of cars. Egg, 11 cars; chestnut, 1, &c.

"MR. MORGAN:—This individual car report shows the consignee of the coal ——

"MR. WOOLVERTON:—Shows the consignee and the cars standing, and shows what is en route.

"MR. MORGAN:—And the cars on hand. Now, on form 4049, is that a telegraphic car report sent to the Superintendent of Transportation?

"MR. WOOLVERTON:—Yes, sir.

"MR. MORGAN:—What does that show?

"MR. WOOLVERTON:—That shows the coal standing at Port Richmond for our individual anthracite shippers.

"MR. MORGAN:—Of the individual anthracite shippers.

"MR. WOOLVERTON:—Yes, sir.

"MR. MORGAN:—And the other report is the report of the bituminous shippers?

"MR. WOOLVERTON:—Yes, sir.

"MR. MORGAN:—Was a copy of the telegraphic report also furnished to Mr. Montgomery or his representative?

"MR. WOOLVERTON:—It was.

"MR. MORGAN:—That report shows the consignee and number of cars and the various sizes of each kind of coal on hand, does it not?

"MR. WOOLVERTON:—It does.

"MR. MORGAN:—The giving of this report to Mr. Montgomery or his representative was a daily occurrence, was it?

"MR. WOOLVERTON:—Yes.

"MR. MORGAN:—Done every day?

"MR. WOOLVERTON:—Yes.

"MR. MORGAN:—How long has that practice been in effect?

MR. WOOLVERTON:—I could not say. It was handed to me.

"MR. MORGAN:—How long ago was that?

"MR. WOOLVERTON:—Well, that was in 1910.

"MR. MORGAN:—And it has been done daily since 1910?

"MR. WOOLVERTON:—Yes.

"MR. MORGAN:—The representative of Mr. Montgomery, I believe, you stated his name was McDermott?

"MR. WOOLVERTON:—McDermott.

"MR. MORGAN:—Did he call at your office each morning for this report?

"MR. WOOLVERTON:—I would not say he called for this particular report, but he called there.

"MR. MORGAN:—And got it each morning?

"MR. WOOLVERTON:—Yes.

"MR. MORGAN:—That will be all from this witness.

"Cross examination.

"MR. HEEBNER:—You know, if not of your own knowledge, from general knowledge, of the situation at Port Richmond, that this was a custom that had been handed down for many years, hadn't it?

"MR. WOOLVERTON:—Yes, sir. I have been in that department myself ten years, since 1903, and it happened before then.

"MR. HEEBNER:—Do you know whether or not it originated at the time when the Philadelphia and Reading Rail-

road Company owned all the stock of the Philadelphia and Reading Coal and Iron Company?

"MR. WOOLVERTON:—I could not ——

"MR. HEEBNER:—And the officers of one were the officers of the other?

"MR. WOOLVERTON:—Yes, it did.

"MR. HEEBNER:—Do you know whether or not any complaint was ever made because a report to the Philadelphia and Reading Railway Company that set out all the coal at Port Richmond, whether consigned to the Coal and Iron Company or others, and embracing both, was handed to an officer of the Coal and Iron Company—was there ever any complaint made about that?

"MR. WOOLVERTON:—I never heard of one.

"MR. HEEBNER:—The practice has been discontinued, hasn't it?

"MR. WOOLVERTON:—Yes, sir.

"MR. HEEBNER:—In other words, now, when you render a statement to the Coal and Iron Company, on that statement is simply given the coal consigned to the Coal and Iron Company?

"MR. WOOLVERTON:—That is all.

"Re-direct examination.

"MR. MORGAN:—I might ask Mr. Woolverton, if you would be in a position to hear of any such complaints, would they be made to you, if any such complaints were made?

"MR. WOOLVERTON:—I should think they would.

"MR. MORGAN:—Mr. Woolverton, you stated, in answer to Mr. Heebner's question, that at the time the Philadelphia and Reading Railroad Company owned all the stock of the Philadelphia and Reading Coal and Iron Company, that a certain practice obtained. Do you know for a fact that the Philadelphia and Reading Railroad Company ever owned all the stock of the Iron Company?

"MR. WOOLVERTON:—I will tell you what I thought Mr. Heebner was getting at, when the same officers were connected both with the Coal and Iron Company and the Rail-

road Company. I don't know anything about their stock. That is what you meant, wasn't it, Mr. Heebner?

"MR. HEEBNER:—Yes, when those two properties were handled together.

"MR. MORGAN:—That will be all from Mr. Woolverton.

"EXAMINER SMITH:—You said the practice had been discontinued?

"MR. WOOLVERTON:—Yes.

"EXAMINER SMITH:—When did that occur?

"MR. WOOLVERTON:—Just recently.

"EXAMINER SMITH:—Very recently?

"MR. WOOLVERTON:—Well, several months ago.

"EXAMINER SMITH:—That is all.

"MR. HEEBNER:—It was discontinued as soon as attention was called to it, that it was not a proper practice?

"MR. WOOLVERTON:—Yes, sir, that is what caused it.

"EXAMINER SMITH:—Who called attention to it?

"MR. WOOLVERTON:—The gentleman isn't here now.

"EXAMINER SMITH:—An officer of the Government?

"MR. WOOLVERTON:—Mr. Burke.

"EXAMINER SMITH:—An employee of the Interstate Commerce Commission?

"MR. WOOLVERTON:—Mr. Burke, yes, sir.

"EXAMINER SMITH:—That is all.

"(Witness excused.)"

Counsel for the Government offer in evidence following **letter of May 2d, 1914, from Secretary of the Interstate Commerce Commission** to Mr. Gordon, in answer to certain queries there outlined, concerning a siding agreement offered by the defendants as the standard siding agreement of the Central Railroad Company of New Jersey, which siding agreement contains a paragraph binding the shipper to route his freight or coal over the Central Railroad of New Jersey:—

"DEAR SIR:—I have your letter of the 30th ultimo, in reference to form of agreement used by the Central Railroad Company of New Jersey covering construction of side tracks, and quoting a paragraph under which the shipper agrees to ship all freight or coal which the shipper has to

offer for shipment from or which is to be received at the siding or trestle over the line of the contracting railroad company.

"You ask to be advised, first, whether the Commission has ever approved this or substantially similar routing clause in siding agreements. I can find no record of any ruling of the Commission upon the question of the legality of such a contract provision, nor does it appear that the Central Railroad Company of New Jersey has filed with the Commission any contract containing the condition quoted in your letter.

"In reply to your second inquiry, the Commission has never construed that portion of section 1 of the Act to regulate commerce, which provides that an interstate railway shall construct, maintain and operate a switch connection with private side tracks, as applied to the routing clause which you quoted.

"There are enclosed herewith several decisions of the Commission in regard to side track construction which you may desire to examine.

"Respectfully,

"GEORGE B. McGINTY

"Secretary.

"Encs."

At 12.45 P. M. a recess was taken until 2 o'clock P. M.

Present.—The Examiner. Messrs. Coudert, Kingsbury and Gordon, for Government. Messrs. Reynolds and Heebner, for the defendants.

William G. Brown, recalled:—

By Mr. Gordon:

Q. Will you state once more your official capacity? A. Secretary of the Philadelphia and Reading Coal and Iron Company.

Q. You have introduced in evidence, have you not, at page 1711 of the stenographer's minutes (printed page 922) the table showing the cost per ton of coal? A. Yes.

Q. Will you please note the column headed "Cost per ton of coal sold by the Company." The figures there given are not, strictly speaking, the cost of production, are they? A. No, sir.

Q. But rather the cost per ton of all the operations of the company? A. That is the actual cost of the coal that is sold. You see, we do not always sell all the coal we mine.

Q. It is the cost per ton of the coal sold? A. Yes. We sell more than our product sometimes, and sometimes less than our product.

Q. Then that would be obtained, I suppose, in a general way, by dividing the total number of tons sold into the total expenses of operation? A. We would deduct from the total cost the value of the coal unsold. For instance, if we mined a thousand tons of coal, at a cost of $2, and sold 900 tons at a cost of $2.50 ,we would have a hundred tons left. That hundred tons we had left we would deduct from the cost of the coal we had mined, which would give the value of the coal we had sold.

Q. Subject to that exception, it would be obtained by dividing the total cost of operation by the total tons of coal sold? A. Yes, sir.

Q. I show you also page 195 of the Government's testimony, printed record, being the answer fifty-two of the Philadelphia and Reading Coal and Iron Company in I. C. C. docket 4914, being a statement of the operating revenue and expenses of the Philadelphia and Reading Coal and Iron Company for the years stated. A. Yes.

Q. Was that statement prepared under your authority? A. I presume it was. I would be the proper officer, but this is prepared almost exactly, I suppose, from the annual report This is our annual report, and the figures agree with the annual report.

Q. You would be familiar with the figures in the annual report? A. Yes.

Q. I wanted to see just what items entered into the cost of operation, as stated in this exhibit on page 195 of the Government's evidence. In ascertaining the figures given in your statement at page 1711 of the stenographer's min-

utes (printed page 922) under the heading "Cost per ton of coal sold," did you include in the total cost, which was divided by the total number of tons sold, the item given in answer to 52 headed "Mining coal and repairs," under expenses? A. Yes.

Q. What did those repairs refer to? A. Colliery equipment, and colliery breakers and tracks, &c.

Q. Matters of that sort? A. Yes.

Q. Did you also include in the cost of operation that large item, averaging over a million dollars a year, headed "Improvements to collieries?" A. Yes.

Q. In answer 52, it also appears, under expenses, that an average of about $2,000,000 a year was spent for anthracite coal purchased. Did that item also enter into the total cost of operation? A. Yes—mined by company?

Q. No, referring still to the heading "Cost per ton of coal sold." A. Yes.

Q. Did it enter in? A. Yes.

Q. That coal was purchased principally under the 65 per cent. basis, was it not? A. During those previous years, yes, under the 65 per cent. basis; up to 1912, all on the 65 per cent. basis. Of course, some of the coal we buy other than 65 per cent. contract, we buy at a fixed price.

Q. That 65 per cent. basis was reached, was it not, as the result of meetings between the independent operators and the large companies; that is a matter of common knowledge? A. Yes.

Q. And reached as a basis which would be fair to both sides? A. You mean the price?

Q. The 65 per cent. price, yes. A. The price was furnished by the Bureau of Anthracite Coal Statistics, if that is what you mean.

Q. No, not quite that. I mean the agreement to receive 65 per cent. was intended to be one fair to both sides? A. Yes.

By Mr. Reynolds:

Q. Do you know anything about the purchase contracts in the controller's office? A. Yes.

Q. You do? A. Yes.

Q. I mean, do you know about the negotiation of the purchase contracts? A. That was made in 1901, the arrangement for the 65 per cent. contract. That has been running ever since. It is the same basis now as it was then, up until 1913.

Q. Is that under your jurisdiction, the purchase of coal? A. Not the purchase of coal; the payment of the purchase price of coal.

Q. That is what I am getting at. Do you know anything about the way the terms are arrived at of the purchase? A. Nothing, no, except the printed contract.

Q. The contract is handed to you and you pay the price? A. Yes.

By Mr. Gordon:

Q. Presumably those purchases were made upon a basis which would give a reasonable profit to the independent operators?

Mr. Reynolds:—I object to the question being put in that way.

A. I know nothing about that at all.

Q. But that has been the basis upon which sales and purchases have been carried on for a long series of years? A. I could not say anything about the profit of independent operators.

Q. But that has been the basis, the sixty-five per cent. basis, upon which sales and purchases have been carried on for a long series of years? A. Yes.

Q. Referring again to the answer 52 on page 195 of the record (Stenographic Minutes, page 396), does the item "Royalty of leased collieries," averaging over $500,000 a year, also enter into the cost of operation in arriving at the cost per ton of coal sold? A. Yes.

Q. You are familiar with the persons to whom these royalties were paid? It would be part of your duty, the payment of these royalties? A. Yes.

Q. Is it or is it not a fact that much the larger part of the lands leased by the Philadelphia and Reading Coal and Iron Company, over 10,000 acres, in fact, are owned by companies such as the Fulton Coal Company, the Preston Coal

Company, and others named by you in your evidence, printed record, page 49 (Stenographic Minutes, page 91), as companies whose stock is nearly all owned by the Philadelphia and Reading Coal and Iron Company? A. Yes.

Q. Do these companies pay dividends? A. Two of them do.

Q. And have from time to time, for years past? A. Yes.

Q. Do these companies which pay dividends have any other substantial business beside receiving royalties from these lands? A. No other.

Q. Then the royalties which are paid to these companies for lands leased by the Philadelphia and Reading Coal and Iron Company, are returned to the Philadelphia and Reading Coal and Iron Company in the form of dividends? A. Yes.

Q. Referring again to answer 52, in I. C. C. Docket 4914, does the item under expenses entitled "Improvements and repairs to houses" also enter into the cost of production? A. No.

Q. You are positive of that? A. Yes, sir.

Q. In arriving at the cost per ton of coal sold, did you also add the very large item in answer 52, over a million dollars a year, headed "All other expenses?" A. I could not say whether we added all of that or not. We added whatever portion was chargeable to the cost.

What constitutes all other expenses, as you use it in that connection? A. Contingent expenses, payment of salaries, legal expenses ——

Q. The fixed charges of the company? A. What do you mean by fixed charges? Interest?

Q. Does interest enter in? A. No.

Q. The salaries of your officials? A. Yes.

Q. Wages to employes? A. Yes.

Q. What else? A. I cannot remember the other items in there exactly. There is quite a number of items, small items.

Q. It is a very substantial item, over a million dollars? A. Yes; wages and salaries of employes, and of a certain portion of the Mining Department.

Q. Do not wages and salaries come in the first item under expenses, "Mining coal?" A. Yes, all the salaries of the Operating Department, but we have quite a force at the office. We have the engineer.

Q. Then the salaries under that item "All other expenses," would include only your office force, strictly office force? A. Office force and our selling agencies, and some of our higher officials of the Mining Department. I could tell exactly what those items are, but I could not state them now from memory.

Q. I see from answer 52 that the Philadelphia and Reading Coal and Iron Company annually purchases and sells about a million dollars' worth of bituminous coal? A. Yes.

Q. Is that coal included in your statement on page 1711 (printed page 922)? A. It is not. I would state that that coal is principally sold in the West, in our depots and yards.

Q. Were the fixed charges of the Philadelphia and Reading Coal and Iron Company—that is, the general expenses, cost of selling and rent of selling offices, and that sort of thing—apportioned between your anthracite and your bituminous business, in arriving at the figure "Cost per ton of coal sold?" A. No, sir.

Q. They were all charged to anthracite? A. All our expenses were charged to anthracite. As I say, the bituminous coal is sold West almost entirely, at our depots and yards there, and it is kept entirely distinct and separate from the anthracite business.

Q. Your general expenses, which apply to your whole business, your office expense, your selling agencies, the cost of carrying on that portion of your business, is not apportioned between your bituminous and your anthracite coal in such a manner that the anthracite operations, as given in your statement on page 1711 (printed page 922) bear only their proportionate share of these general expenses? A. No, they are not included there.

Q. What are not included there? A. The proportion.

Q. It is not separated? A. It is not separated. It is charged entirely to bituminous. The bituminous is bought

entirely and sold entirely in the West, and all the expenses connected with bituminous—there is no general office expense chargeable to bituminous, because our bituminous is all sold at one point, in the West.

Q. But your company does a million dollars' worth of bituminous business a year? A. Yes, and this table of the cost of anthracite does not include any of the proportion of bituminous.

Q. Any of the expenses directly connected with the bituminous business? A. No, it does not include any.

Q. At the same time, from your statement of your general expenses, nothing is deducted as the proportion properly assignable to your bituminous business? A. If you look at this page 52, the coal sales of bituminous are given separately, the receipts of bituminous, and all the expenses in connection with the bituminous are deducted from those receipts. That would give the profit or loss on bituminous coal, which is included principally in the "coal purchased, anthracite."

Q. I am not sure that we meet in our point of view exactly. Let me state it once more. Take this situation here: you pay your president a certain salary? A. Yes.

Q. That is properly included, I suppose, in the general item "All other expenses?" A. Yes.

Q. Now that general item "All other expenses," is included in the total costs of operation, which are divided by the total number of tons of anthracite coal sold? A. Yes.

Q. And from that salary to the president, which is given as a part of the costs of operation of your anthracite business, is there or is there not any deduction made for that part of his duties which pertain to the one million odd dollars of bituminous business? A. No.

Q. In your exhibit at page 1711 (printed page 922), and also in your other exhibit at page 1713 (printed page 924), where you refer to tonnage, do you give your tonnage in gross tons or net tons? A. Gross tons, 2240 pounds.

Q. I show you an exhibit put in by the Government, pages 396-7 of the printed record (Stenographic Notes,

page 795), relative to the production of coal from lands leased by the Philadelphia and Reading Coal and Iron Company to independent operators. Was this statement prepared under your direction? A. Yes, sir.

Q. Referring to the last heading on page 307, "From lands leased to the Philadelphia and Reading Coal and Iron Company," that represents, does it not, lands which are held under lease by the Philadelphia and Reading Coal and Iron Company, and by it subleased to independent operators? A. Yes.

Cross examination.

By Mr. Reynolds:

Q. I notice that you have your cost of coal per ton in the exhibit on page 1711 (printed page 922), divided into two columns, one column headed "Mined by the Company" and the other "Mined and purchased." Is the cost per ton at any place separated between the coal mined by the company and the coal purchased? A. We show the cost separately of the coal purchased, and also separately the cost of the coal mined. The mined and purchased includes both the coal mined and the cost of the coal purchased.

Q. What others than the Preston Coal Company and the companies whose stock is owned by the Philadelphia and Reading Coal and Iron Company, do you lease on a royalty basis? A. We lease lands from the Girard Estate, and lease lands from the Sheafer Estate. I think those are the principal ones; the City of Philadelphia, the Girard Estate and some from the estate of P. W. Sheafer.

Q. What is the extent of the Girard Estate lands? A. In acreage?

Q. Yes. A. I could not tell, nor could I tell of the Sheafer Estate. Our operating department could specify that.

Q. Is it considerable? A. Considerable.

Q. What are your royalty payments to the Girard Estate by the month, say? Have you any idea? A. About $20,000 a month.

Q. $240,000 a year? A. Yes.

Q. That is your best recollection? A. Yes.

Q. And to the Sheafer Estate? A. To the Sheafer Estate from $30,000 to $35,000 a month.

Q. That would be roughly $400,000 a year? A. Yes, sir.

Re-direct examination.

By Mr. Gordon:

Q. You said that your royalties were $20,000 a month to the Girard Estate? A. About.

Q. And $30,000 to $35,000 a month to the Sheafer Estate? A. Yes.

Q. Those royalties are dependent upon the amount of coal mined, are they not? A. Yes.

Q. So that in the the Summer months, when the collieries are not working full time, the royalties would be smaller? A. No doubt the royalties would be smaller, yes.

Q. Considerably smaller? A. Considerably smaller.

Q. So that it would not be a proper estimate of the total royalty paid to multiply the amount of royalty paid during the Winter months by twelve? A. No.

Q. Referring to the answer on page 195 of the printed record (Stenographic Minutes page 396), there is an item "Interest and dividends," amounting to a very large sum. Do the dividends which are referred to there come from the stocks held in the subsidiary coal companies to which I have referred? A. Part of that item of interest and dividends receipts are dividends received from the Locust Gap and Fulton Coal Company.

Q. Do you receive dividends from any other companies except these two companies? A. None of the other subsidiary companies.

Q. Their part is a very considerable part of the item "Interest and dividends?" A. It is a fair proportion of the amount. I could not remember exactly the amount of dividends without referring to the books.

Q. Do these companies to which you referred have any accumulated surplus or funds in their possession, which

are not turned over to the Philadelphia and Reading Coal and Iron Company in the form of dividends? A. Very little.

Re-cross examination.

By Mr. Reynolds:

Q. Take the Sheafer Estate, to which, in answer to my mental arithmetic, you said you paid royalties of about $400,000 a year. Just giving us your best recollection—of course, I know it is difficult without your books—how much would you say ought to be taken off of that to meet with Mr. Gordon's very proper suggestion about the slack mining in the Summer? What would it reduce the royalties to, do you think? A. For the year?

Q. Yes. A. I think we pay them from $350,000 to $400,000 a year.

Q. To be fair, could you say from recollection that you paid them at least $350,000 a year? A. That is what I would say from recollection, yes.

Q. And to the Girard Estate, where mere multiplication would make $240,000, what would you say at least you paid per annum to the Girard Estate for royalties? A. I would say $125,000.

Q. At least? A. At least.

Q. And the maximum? A. The maximum would probably be $200,000. Frequently in these collieries the breakers get out of order, and sometimes they are stopped a month or two during a year, odd years, and you can hardly estimate the amount paid yearly.

Counsel for Government requested that Mr. Brown furnish the Examiner with a statement showing, for the years 1907 to 1912, inclusive, the royalties paid to owners of lands leased to the Philadelphia and Reading Coal and Iron Company, dividing them into two classes: Class 1. those companies whose stocks are owned by the Philadelphia and Reading Coal and Iron Company, and Class 2, all other leased lands.

Such a statement was subsequently furnished to the Examiner, as follows:—

THE PHILADELPHIA AND READING COAL AND IRON COMPANY.

STATEMENT OF AMOUNTS PAID SUNDRY PARTIES FOR ROYALTY ON COAL MINED, FOR THE FISCAL YEARS ENDED JUNE 30, 1907 TO 1912, BOTH INCLUSIVE.

STATEMENT OF AMOUNTS PAID SUNDRY PARTIES FOR ROYALTY ON COAL MINED, FOR THE FISCAL YEARS ENDED JUNE 30, 1907 TO 1912, BOTH INCLUSIVE.

TO WHOM PAID.	1907	1908	1909	1910	1911	1912
AUXILIARY COAL COMPANIES.						
Fulton Coal Co.	$2,308.93	$1,976.98	$3,130.03	$3,573.42	$2,923.57	$1,782.54
Locust Gap Improvement Co.	17,376.13	30,286.41	42,004.63	36,066.78	59,652.18	36,219.41
Tremont Coal Co.	8,464.78	9,693.40	2,036.99			
Preston Coal & Improvement Co.	51,281.05	51,408.61	37,365.37	26,732.12	15,623.51	19,091.38
Delaware Coal Co.	124.59					
Total Auxiliary Companies.	$79,555.48	$93,365.40	$84,537.02	$66,372.32	$78,199.26	$57,093.33
OTHER PARTIES.						
City of Philadelphia	$192,574.25	$171,554.02	$161,877.09	$145,460.52	$112,306.07	$104,189.70
Executors Estate of P. W. Sheafer	284,821.70	288,041.80	246,770.13	252,985.59	208,124.01	201,472.24
Girard Trust Co.	45,862.67	36,531.93	30,137.85	30,312.36	44,086.42	36,375.68
Administrators Estate of H. Bellas, Deceased	14,117.30	13,482.38	13,860.99	13,555.96	12,836.19	7,162.54
Cumberland Dugan *et al*	19,208.52	18,003.82	11,289.36	9,939.54	8,289.75	7,919.50
D. S. Althouse	6,594.95	9,792.94	11,705.31	8,226.16	9,452.51	9,553.83
Lehigh Valley Coal Co.	32,296.18	32,332.22	29,712.89	30,457.75	27,739.06	27,071.39
Alex. Klinger Heirs				300.00	1,200.00	1,200.00
Mrs. Emily Adams	1,072.54	2,247.19	1,303.70	1,381.27	1,314.45	389.21
Susquehanna Coal Co.	48.11	1,589.78	2,897.82	4,232.57	7,087.27	5,327.46
H. B. Coxe, Agent	879.57	637.55	89.50		51.75	14.28
F. B. Bannan, Agent	112.37					
Locust Mountain C. & I. Co.		143.45				
Lytle Coal Co.						753.73
Total of Other Parties	$597,588.16	$574,357.08	$509,644.64	$496,851.72	$432,487.48	$401,429.56
Grand Total	$677,143.64	$667,722.48	$594,181.66	$563,224.04	$510,686.74	$458,522.89

Philadelphia, May 7, 1914.

Government's Counsel offer in evidence the following statement:

THE PHILADELPHIA AND READING COAL AND IRON COMPANY.

STATEMENT SHOWING THE AVERAGE PRICE RECEIVED AT MINES FOR EACH SIZE OF ANTHRACITE COAL AND FOR ALL SIZES TAKEN TOGETHER IN EACH YEAR FROM 1898 TO 1913, BOTH INCLUSIVE.

YEAR	LUMP	STMR.	BRO.	EGG	STOVE	CHEST.	PEA	BUCK.	RICE	BARLEY	AVERAGE
1898	2.19.5	1.83.3	1.96.7	2.29.1	2.45.5	2.23.3	1.25.9	.70.3	.26.8	.....	1.77.3
1899	2.25.7	1.94.7	1.92.7	2.26.4	2.51.9	2.49.7	1.21.1	.69.5	.30.8	.....	1.84.1
1900	2.26	2.05.2	2.03.2	2.39.2	2.70.7	2.69.6	1.41.6	.83.8	.38	.....	1.93.7
1901	2.41.9	2.06.1	2.23.8	2.75.2	3.05.7	3.03.6	1.63.2	1.00.8	.43.1	.....	2.20.7
1902	2.63.4	2.24	2.57.6	3.09.2	3.22.2	3.25.8	1.74.3	1.15.6	.45.6	.....	2.32.3
1903	2.03.2	2.55.2	2.97.7	3.46.2	3.54.7	3.54.9	1.95.3	1.32.8	.57.7	.....	2.63.4
1904	2.79.5	2.33.3	2.87.5	3.36.6	3.50.9	3.51.9	1.67.8	1.12.4	.47.6	.....	2.53.4
1905	2.74.5	2.33.3	2.86.6	3.35.4	3.48	3.49.8	1.56.5	1.05.6	.45.2	.....	2.40.8
1906	2.96.7	2.34.3	2.87.2	3.40.3	3.54.2	3.55	1.55.4	1.04.1	.43.5	.....	2.32.8
1907	3.11.8	2.52.7	2.85.4	3.35	3.47.1	3.49.6	1.71.8	1.11.6	.49.9	.....	2.35.6
1908	3.24.6	2.55.9	2.81.1	3.33.1	3.46.8	3.48.7	1.87.8	1.25.8	.56.7	.....	2.41.o
1909	3.33.3	2.53.9	2.78.7	3.29.3	3.47.1	3.48.2	1.88.7	1.27.9	.56.7	.28.9	2.41.8
1910	3.27.3	2.54.2	2.77.1	3.28.4	3.46.8	3.49	1.87	1.18.3	.56.7	.26.8	2.41.3
1911	3.03.7	2.63.3	2.74.4	3.26.7	3.43.3	3.65.2	1.87.3	1.11.4	.56.6	.34	2.38.9
1912	3.71.3	2.76	2.93.5	3.56.4	3.73.9	3.96.3	2.11.7	1.28.4	.65.4	.39.8	2.70.3
1913	3.73.8	2.99.1	2.97.8	3.42.4	3.68.9	3.89	2.35.2	1.27	.70.6	.41.2	2.69.2

Philadelphia, May 2nd., 1914

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Government's Counsel offer in evidence the following statement:

THE PHILADELPHIA AND READING COAL AND IRON COMPANY.

STATEMENT SHOWING AMOUNT OF EACH SIZE OF ANTHRACITE COAL SOLD AT NEW YORK TIDEWATER DURING EACH YEAR 1898 TO 1913, BOTH INCLUSIVE, AND THE TOTAL FOR EACH YEAR.

YEAR.	STEAMBOAT.	BROKEN.	EGG.	STOVE.	CHESTNUT.	PEA.	BUCKWHEAT.	RICE.	BARLEY.	SCREENINGS.	TOTAL.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1898	379.14	250,735.17	103,471.04	345,334.06	263,113.08	20,158.17	37,111.13	39,615.00	.....	13,825.00	1,073,744.19
1899	333.13	272,084.17	150,752.06	374,323.06	319,602.02	49,745.18	56,009.17	33,680.12	.....	16,506.04	1,273,038.15
1900	50.10	113,234.00	128,075.11	265,433.18	218,181.05	59,756.04	48,193.02	66,702.00	.....	11,670.04	911,296.14
1901	180.00	80,374.03	135,567.09	357,145.18	316,566.00	48,058.09	25,087.09	39,570.10	.....	13,151.10	1,015,701.08
1902	109.00	48,366.10	66,236.00	159,827.00	142,177.00	16,163.00	7,228.06	20,757.01	.....	6,569.00	467,432.17
1903	150.00	110,271.00	121,927.00	322,622.00	265,749.00	32,493.00	44,920.15	28,427.05	.....	9,652.19	936,212.19
1904	.....	126,836.00	132,987.17	383,147.00	347,132.10	169,887.10	172,464.00	107,988.10	.....	10,139.12	1,450,582.19
1905	25.00	163,446.00	156,108.00	392,716.00	310,536.00	137,723.10	127,570.00	172,198.10	.....	10,725.00	1,471,048.00
1906	.....	174,051.06	113,386.00	306,305.00	235,941.00	127,545.10	99,019.00	191,612.10	.....	8,537.00	1,256,397.06
1907	.....	201,850.17	139,987.19	359,653.00	331,180.10	308,419.10	157,986.10	251,719.00	.....	10,445.00	1,761,242.06
1908	.....	163,433.00	121,739.01	296,055.00	254,651.00	164,056.10	69,318.00	238,600.10	.....	8,768.00	1,316,621.01
1909	.....	179,099.00	115,465.00	273,612.00	257,449.00	156,099.00	69,179.00	227,325.00	11,525.00	7,526.00	1,297,279.00
1910	.....	156,010.00	93,592.00	280,142.00	216,666.00	134,829.00	79,856.10	208,409.00	67,044.00	6,753.10	1,243,302.00
1911	87.00	153,646.00	91,339.00	260,422.00	227,978.00	133,372.00	80,754.00	226,203.00	106,853.00	8,337.00	1,288,991.00
1912	86.00	162,770.00	171,205.00	312,075.00	317,727.00	140,036.00	288,919.00	173,918.00	40,875.00	9,332.00	1,616,943.00
1913	91.00	158,900.00	119,463.00	271,619.00	218,855.00	90,692.00	78,014.17	58,355.00	11,232.00	7,838.00	1,015,059.17

Philadelphia, May 4th, 1914.

Government's Counsel offer in evidence the following statement:

THE PHILADELPHIA AND READING COAL AND IRON COMPANY.

STATEMENT SHOWING THE AMOUNT OF EACH SIZE OF ANTHRACITE COAL SOLD AT THE MINES DURING EACH YEAR FOR THE YEARS 1898 TO 1913, BOTH INCLUSIVE, AND THE TOTAL FOR EACH YEAR.

	LUMP.	STEAMBOAT.	BROKEN.	EGG.	STOVE.	CHESTNUT.	PEA.	BUCKWHEAT.	RICE.	BARLEY.	TOTAL.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1898	32,020.06	283,350.00	245,670.07	254,540.02	464,117.01	700,399.04	1,011,074.01	1,129,449.00	206,067.16	.....	4,326,687.17
1899	34,419.13	457,761.15	334,493.05	289,458.12	521,760.12	808,973.02	1,143,597.12	1,383,539.18	204,364.17	.....	5,178,369.06
1900	31,435.12	445,538.08	389,804.03	360,165.08	473,997.04	771,409.01	1,080,372.12	1,283,977.06	234,290.15	.....	5,070,990.09
1901	30,351.13	527,039.10	439,144.01	420,708.19	521,733.17	917,219.12	1,135,003.05	1,468,577.03	306,547.10	.....	5,766,325.10
1902	20,103.19	384,482.00	230,237.05	307,541.02	452,374.04	591,732.19	741,116.15	805,074.06	333,794.03	.....	3,866,456.13
1903	26,164.13	716,214.15	413,606.13	445,765.07	678,110.10	890,079.17	1,163,758.05	1,477,597.14	443,077.06	.....	6,254,375.00
1904	21,301.14	493,261.13	337,210.11	458,025.16	691,293.11	1,011,128.13	1,247,933.10	1,395,542.02	417,939.04	.....	6,073,636.14
1905	21,766.09	643,588.09	338,265.15	455,413.12	734,758.08	1,035,522.12	1,357,063.09	1,783,978.07	464,798.12	.....	6,835,155.13
1906	12,394.11	564,225.08	388,792.09	464,874.02	643,801.01	858,646.03	1,402,240.08	1,795,246.04	551,014.19	.....	6,681,235.05
1907	10,505.12	518,219.13	308,635.18	468,754.05	747,561.13	1,098,084.18	1,623,035.10	2,184,921.17	591,041.06	.....	7,550,760.12
1908	7,012.04	203,912.11	181,039.05	435,402.06	673,876.11	971,508.11	1,216,115.11	1,791,127.12	627,318.00	.....	6,107,312.11
1909	5,915.18	306,557.14	195,528.17	448,691.02	688,960.00	932,446.19	1,111,044.03	1,547,062.03	731,237.09	16,901.17	5,984,346.02
1910	5,042.05	327,879.00	218,008.11	631,124.15	758,237.13	982,964.05	1,136,208.10	1,594,981.05	667,962.18	41,682.18	6,364,092.00
1911	5,857.06	184,280.19	225,684.12	475,841.12	783,873.15	1,008,450.06	1,221,223.10	1,767,059.13	694,642.19	38,284.08	6,405,199.00
1912	1,957.05	154,364.09	325,086.10	686,986.04	853,697.11	1,084,050.10	1,140,848.14	1,840,787.15	617,161.05	52,179.15	6,757,119.18
1913	1,906.01	154,206.05	308,094.18	475,226.14	701,685.14	896,009.09	821,358.05	1,738,561.12	600,810.10	79,465.10	5,777,324.18

Philadelphia, May 2nd, 1914.

Government's Counsel offer in evidence the following statement:

THE PHILADELPHIA AND READING COAL AND

HIGH AND LOW SELLING PRICES F. O. B. MINES AND TIDEWATER (NEW YORK) FOR ALL SIZES OF ANT

YEAR	HIGH AND LOW SELLING PRICES F. O. B. MINES.																		
	LUMP		STEAMER		BROKEN		EGG		STOVE		CHESTNUT		PEA		BUCKWHEAT		RICE		
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	Hi
November, 1880.....					Price	recor	ds not	kept p	reviou	s to 18	90.								
November, 1890.....	2.40	2.05	2.40	2.05	2.45	2.28	2.65	2.56	2.75	2.65	2.80	2.63	1.25	.80	.75	.50	.30	.25	
November, 1895.....	2.50	2.05	2.50	2.05	2.25	1.93	2.65	1.73	2.75	1.81	2.50	1.69	1.30	.85	.85	.65	.32	.25	
November, 1896.....	2.50	2.05	2.50	2.05	2.50	1.98	2.90	2.34	3.00	2.43	2.80	2.30	1.30	.85	.85	.65	.30	.25	
November, 1897.....	2.50	2.05	2.50	2.05	2.50	1.94	2.90	2.30	3.00	2.44	2.80	2.29	1.30	.85	.85	.65	30	.25	
November, 1898.....	2.50	2.05	2.50	2.05	2.50	1.92	2.90	2.08	3.00	2.20	2.80	2.07	1.50	.85	.85	.65	.30	.25	
November, 1899.....	2.50	2.05	2.50	2.05	2.45	1.88	2.85	2.12	2.95	2.35	2.95	2.32	1.50	.85	.85	.65	.40	.25	
November, 1900.....	2.50	1.90	2.50	1.90	2.75	1.80	3.00	2.08	3.25	2.46	3.25	2.47	1.75	1.25	1.25	.75	.60	.25	
November, 1901.....	2.50	2.05	2.50	2.05	2.75	2.36	3.00	2.74	3.25	2.90	3.25	2.89	1.75	1.50	1.25	.90	.60	.25	
November, 1902.....	3.00	2.55	3.00	2.55	3.50	3.24	3.75	3.43	3.75	3.43	3.75	3.42	2.25	2.10	1.75	1.50	.90	.75	
November, 1903.....	3.00	2.55	3.00	2.55	3.50	2.79	3.75	3.22	3.75	3.22	3.75	3.22	2.25	1.50	1.75	1.07	.65	.30	
November, 1904.....	3.00	2.55	3.00	2.55	3.50	2.76	3.75	3.22	3.75	3.22	3.75	3.22	2.00	1.49	1.50	1.06	.65	.30	
November, 1905.....	3.00	2.55	3.00	2.55	3.50	2.74	3.75	3.22	3.75	3.22	3.75	3.22	1.75	1.50	1.25	1.00	.65	.30	
November, 1906.....	3.50	2.55	3.00	2.55	3.50	2.75	3.75	3.22	3.75	3.22	3.75	3.22	1.75	1.50	1.25	1.00	.65	.30	
November, 1907.....	3.50	2.55	3.00	2.55	3.50	2.75	3.75	3.25	3.75	3.25	3.75	3.25	2.00	1.60	1.50	1.10	.50	.50	
November, 1908.....	3.50	2.55	3.00	2.55	3.50	2.75	3.75	3.25	3.75	3.25	3.75	3.25	2.00	1.75	1.50	1.25	.75	.40	
November, 1909.....	3.50	2.55	3.00	2.55	3.50	2.75	3.75	3.20	3.75	3.25	3.75	3.25	2.00	1.75	1.50	1.25	.65	.40	
November, 1910.....	3.50	2.55	3.00	2.55	3.50	2.75	3.75	3.25	3.75	3.25	3.75	3.25	2.00	1.75	1.50	1.00	.65	.40	
November, 1911.....	3.50	2.55	3.00	2.75	3.50	2.75	3.75	3.25	3.75	3.25	4.00	3.40	2.00	1.75	1.50	1.00	.75	.40	
November, 1912.....	3.50	2.55	3.00	3.00	3.50	3.00	3.75	3.00	4.00	3.50	4.15	3.65	2.50	1.75	1.50	1.25	.85	.40	
November, 1913.....	4.25	3.00	3.00	3.00	3.50	2.95	3.75	3.50	4.00	3.70	4.15	3.75	2.50	2.10	1.50	1.05	.85	.40	

NOTE:—The above represent the prices received for our WHITE ASH Coals.
Philadelphia, May 6th, 1914.

THE PHILADELPHIA AND READING COAL AND IRON COMPANY.

ES AND TIDEWATER (NEW YORK) FOR ALL SIZES OF ANTHRACITE COAL SOLD FOR THE MONTH OF NOVEMBER, AS FOLLOWS:—

SELLING PRICES F. O. B. MINES.									HIGH AND LOW SELLING PRICES F. O. B. TIDEWATER (NEW YORK).													
ESTNUT		PEA		BUCKWHEAT		RICE		BARLEY	BROKEN		EGG		STOVE		CHESTNUT		PEA		BUCKWHEAT		RICE		BARLEY	
gh	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
80	2.63	1.25	.80	.75	.50	.30	.25			3.95	3.80	4.10	3.80	4.45	3.95	3.80	3.55	2.75	2.50	No Sales		No Sales			
50	1.69	1.30	.85	.85	.65	.32	.25			3.90	3.40	4.10	3.50	4.30	3.50	3.95	3.35	2.50	1.75	1.75	1.60	1.50	1.50		
80	2.30	1.30	.85	.85	.65	.30	.25			3.45	2.70	3.80	2.75	4.00	2.70	3.75	2.64	2.85	2.10	1.89	1.60	1.50	1.50		
80	2.29	1.30	.85	.85	.65	.30	.25			3.90	3.19	4.35	3.60	4.45	3.85	4.20	3.80	2.45	2.15	1.87	1.70	1.50	1.48		
80	2.07	1.50	.85	.85	.65	.30	.25			3.70	3.20	3.95	3.55	4.30	3.80	3.95	3.55	2.20	2.10	1.65	1.50	1.50	1.35		
95	2.32	1.50	.85	.85	.65	.40	.25			3.40	3.10	3.65	3.20	3.90	3.50	3.65	3.30	2.50	2.15	1.85	1.75	1.35	1.35		
25	2.47	1.75	1.25	1.25	.75	.60	.25			3.45	3.10	4.10	3.30	4.25	3.76	4.25	3.76	2.25	1.95	1.85	1.70	1.45	1.25		
25	2.89	1.75	1.50	1.25	.90	.60	.25			3.95	3.20	4.30	3.45	4.45	3.95	4.50	3.95	3.00	2.25	1.80	1.80	1.30	1.30		
75	3.42	2.25	2.10	1.75	1.50	.90	.75			3.95	3.45	4.35	4.20	4.55	4.40	4.65	4.40	2.90	2.50	2.20	2.00	No Sales			
75	3.22	2.25	1.50	1.75	1.07	.65	.30			4.70	3.95	4.95	4.95	4.95	4.95	4.95	4.95	3.00	3.00	No Sales		1.60	1.60		
75	3.22	2.00	1.49	1.50	1.06	.65	.30	.35	.35	4.70	4.20	4.95	4.95	4.95	4.95	4.95	4.95	2.85	2.85	2.40	2.35	1.50	1.45		
75	3.22	1.75	1.50	1.25	1.00	.65	.30	.35	.35	4.45	4.20	4.95	4.95	4.95	4.95	4.95	4.95	2.85	2.80	2.35	2.30	1.50	1.45		
75	3.22	1.75	1.50	1.25	1.00	.65	.30	.35	.35	4.70	4.20	4.95	4.95	4.95	4.95	4.95	4.95	2.85	2.80	2.35	2.30	1.60	1.45		
75	3.25	2.00	1.60	1.50	1.10	.50	.50	.35	.35	4.20	4.20	4.95	4.95	4.95	4.95	4.95	4.95	2.85	2.80	2.35	2.35	1.45	1.45		
75	3.25	2.00	1.75	1.50	1.25	.75	.40	.35	.35	4.50	4.20	4.95	4.85	4.95	4.95	4.95	4.85	3.20	2.85	2.45	2.35	1.70	1.70	1.50	1.45
75	3.25	2.00	1.75	1.50	1.25	.65	.40	.35	.35	4.20	4.20	4.95	4.95	4.95	4.95	4.95	4.95	3.20	2.95	2.45	2.35	1.70	1.70	1.45	1.35
75	3.25	2.00	1.75	1.50	1.00	.65	.40	.35	.35	4.20	4.20	4.95	4.70	4.95	4.95	4.95	4.95	3.20	2.95	2.45	2.35	1.70	1.70	1.45	1.35
00	3.40	2.00	1.75	1.50	1.00	.75	.40	.35	.35	4.20	4.20	4.95	4.95	4.95	4.85	5.20	5.10	3.20	2.95	2.45	2.35	1.70	1.50	1.45	1.35
15	3.65	2.50	1.75	1.50	1.25	.85	.40	.50	.50	4.95	4.45	5.20	5.20	5.20	5.45	5.45	5.45	3.45	2.95	2.45	2.45	1.95	1.60	1.70	1.60
15	3.75	2.50	2.10	1.50	1.05	.85	.40	.50	.50	4.45	4.35	5.20	5.10	5.20	5.10	5.45	5.35	3.35	3.35	2.45	2.45	1.95	1.95	1.70	1.55

No Barley sold until 1904.

No Barley Sold until 1907.

Adjourned until Wednesday, May 6, 1914, at 11 o'clock A. M.

Government's Counsel offer in evidence the following statement.

THE PHILADELPHIA AND READING COAL AND IRON COMPANY.

STATEMENT SHOWING THE AVERAGE PRICES RECEIVED F. O. B. NEW YORK TIDEWATER FOR EACH SIZE OF ANTHRACITE CO. AND FOR ALL SIZES TAKEN TOGETHER, IN EACH CALENDAR YEAR FROM 1898 TO 1913, BOTH INCLUSIVE.

YEAR	STMR.	BRO.	EGG	STOVE	CHEST.	PEA	BUCK	RICE	BARLEY	SCREEN	AVERAGE
1898	3.72.7	3.26.9	3.72.6	4.05.2	3.68.8	2.33.5	1.78.6	1.45	.....	1.38.2	3.53.4
1899	3.73.1	3.18.7	3.48.8	3.93.6	3.75.6	2.18.7	1.78.4	1.26	.....	1.47.2	3.41.3
1900	3.75	3.29.9	3.74.7	4.22.3	4.12.5	2.27.6	1.77.9	1.29.6	.....	1.54.7	3.51.4
1901	4.30	3.61.6	4.17.3	4.61	4.52.4	2.68.3	2.11.5	1.34.4	.....	1.63.8	4.12.8
1902	4.05	3.78.6	4.52.9	4.76.8	4.62.6	2.79	2.18.7	1.61.7	.....	1.79.3	4.30.2
1903	4.91.7	4.27.6	4.91.7	5.11.8	5.00.2	2.87	2.36.3	1.46.6	.....	1.62.9	4.60.2
1904	.....	4.29.5	4.84	5.10.1	5.00.8	2.83.9	2.34.6	1.46.6	.....	1.50.4	4.09.5
1905	4.45	4.27.8	4.85.9	5.09.1	4.95.7	2.84.1	2.33.9	1.46.4	.....	1.49.9	4.04.6
1906	.....	4.24.7	4.88.6	5.13.7	5.02.9	2.84.8	2.35	1.46.6	.....	1.49.9	3.93.1
1907	.....	4.24.3	4.82.7	5.03.5	4.93.1	2.89.1	2.40.7	1.67.3	1.45.2	1.58.4	3.79.2
1908	.....	4.25.8	4.83.6	5.03.7	4.96.3	2.96.2	2.41.8	1.70.4	1.39.8	1.60	3.88.1
1909	.....	4.23	4.75	5.03.4	4.94.9	2.97.3	2.40.7	1.70.5	1.38.6	1.59.1	3.84.9
1910	.....	4.23.3	4.82.6	5.04.6	4.92.9	2.96.1	2.37.6	1.64.7	1.37.3	1.60.5	3.72.3
1911	4.45	4.22.6	4.78.6	4.99.3	5.06.5	2.96.5	2.40.4	1.77.5	1.48	1.60	3.63.7
1912	5.10	4.41.5	5.10.8	5.23.9	5.39	3.18.7	2.51.6	1.95.1	1.57.9	1.60	4.02.7
1913	5.10	4.48.6	5.05.5	5.19.8	5.35.9	3.35.2	2.45	1.99	1.61.8	1.59.9	4.47.5

Philadelphia, May 7, 1914.

Met pursuant to adjournment, at 2 Rector Street, New York City, Wednesday, May 6th, 1914, at 11 o'clock A. M.

Present—The Examiner; Messrs. Coudert, Kingsbury and Gordon, for Government; Jackson E. Reynolds, Esq., for defendants.

Government's counsel offer in evidence, to be marked **"Government's Exhibit 82,"** the Ruley Map. Mr. Reynolds advises that he has spare copies of this map, and, for the sake of convenience, will incorporate it, as Government's Exhibit 82, in defendant's map exhibits in this case.

Government's counsel offer in evidence the **testimony of Agnew T. Dice**, General Superintendent of the Philadelphia and Reading Railway Company, given in the "Old Reading Case," Volume 4 of Record, page 642, as follows:—

"Q. You may describe the service of the Port Reading Railroad Company at its terminal, after your service of transportation, delivering the coal into your yards, is ended, so as to get the coal over the piers into the vessels, the service of shifting in the yard to get the coal, as it is needed for a particular boat, up over the trestle or wharf on to the wharf, discharged, weighed and so forth. A. Roughly, we run over the Port Reading tracks with our through trains and from Port Reading Junction to Port Reading, which is seventeen miles, and at Port Reading make delivery of the loads to the Port Reading Railroad in their yard, and the Port Reading Railroad employs the engines and crews that do the local handling, switching cars on to the piers, unloading them, returning the empties to the yard.

Q. Do you know what allowance is made to the Port Reading Railroad Company for that service? A. I understand it is fifteen cents a ton.

Q. That applies to both bituminous and anthracite, I am told? A. I understand it so."

Government's counsel offer in evidence the **testimony of Charles E. Henderson,** in the "Old Reading Case," Volume 4 of Record, pages 572, 573, as follows:—

"Q. Do you remember the relations of the Port Reading Railroad Company and the Philadelphia and Reading Railway Company in respect of the operations and conduct of operations at the Port Reading terminal? Do you know whether or not the terminal service at Port Reading is rendered by the Port Reading Railroad Company and at its expense, or do you know as to the system of accounting as between the two companies? A. I never took that division as between the Philadelphia and Reading Railway and the Port Reading Railroad Company into account as much as the accounting officers who kept that separate, and would be better witnesses for that than I would be."

Government's counsel offer in evidence the **testimony of Joseph H. Harris,** in the "Old Reading Case," Volume 2 of Record, pages 10 and 11, as follows:—

"Q. When was the line constructed from Bound Brook down to Port Reading? A. That was before my presidency two or three years, I think.

Q. Was that operated by the Philadelphia and Reading Railroad Company while you were president? A. Yes, sir; I overlooked that.

Q. Then your tide-water terminus was Port Reading, in the harbor of New York, during the time you were president? A. Yes, sir; our tide-water terminus for coal business in New York Harbor was. We shipped nothing but coal there.

Q. And it is yet? A. Yes, sir; I overlooked the fact that we operated the Atlantic City Railroad, which ran down to the Jersey coast.

By MR. CAMPBELL:

Q. That was a separate corporation, and always was, was it not? A. It was; yes.

By Mr. McReynolds:

Q. It is operated by the Philadelphia and Reading Railway Company? A. No, sir; it is an independent organization.

Q. Does its stock belong to the Philadelphia and Reading Railway Company? A. Largely; yes.

Q. It is controlled by the Philadelphia and Reading Railway Company, is it not? A. Yes, sir.

Q. It is operated as part of its system, is it not? A. No; it is operated by its own officers.

Q. Were you president of the Atlantic City road while you were president of the Philadelphia and Reading? A. Yes, sir.

Q. Describe the general course over which anthracite coal passed when carried by The Philadelphia and Reading Railroad Company from the collieries in the southern coal field to New York Harbor? A. That coal very largely went to the tide-water at Port Reading, and some of it went to the tide-water termini of the New Jersey Central.

Q. What I want to get is a description of the route which the coal took from the collieries in the southern coal field. A. Some of it went down near to Philadelphia and took the Bound Brook road, and some of it went down by the Jersey Central. The majority of it went over the Bound Brook road.

Q. Did the Philadelphia and Reading Railway Company have a continuous line from the coal fields to the New York Harbor over which it sent its coal? A. Of what time are you speaking?

Q. I am speaking of while you were president. A. No; their only line to New York Harbor was the line to Port Reading. I do not know whether that is considered a part of New York Harbor or not.

Q. They had a continuous line of tracks from the coal regions in Pennsylvania down to Port Reading, on the harbor of New York, over which their coal came? A. Yes, sir.

Q. That coal was transported upon through bills of lading? A. I suppose it was.

Q. And is it the course over which the coal is carried to-day? A. Yes, sir."

Government's counsel offer in evidence extract from the **report of the President and Managers of the Philadelphia and Reading Railroad Company** for the year 1871, pages 16 and 17, as follows:—

"The repeated and serious interruptions of the business of the Company, caused by strikes in the coal region during the last few years, and the many fluctuations in the coal trade, produced by alternate periods of expansion and depression resulting therefrom, have directed the attention of the Managers of the Company to the necessity of exercising some control over the production of coal, so as to prevent a recurrence of the difficulties heretofore experienced; and it was believed that the best way of accomplishing this result, without injuriously affecting individual interests, was for the Company to become the owners of coal lands situate upon the line of its several branches.

In order to provide the means to make these purchases, a loan of twenty-five millions of dollars was authorized, and secured by a mortgage dated the first day of June last, executed to The Fidelity Trust and Safe Deposit Company, of Philadelphia—a copy of which mortgage is annexed to this report. Of the loan thus authorized, $6,000,000 of bonds will be retained to retire the previous mortgage bonds of the Company, amounting in the aggregate, at the date of the mortgage, to $5,801,200, and of the balance, $11,962,000 have already been issued for the purchase of coal lands."

Government's counsel offer in evidence extract from the **Report of the Board of Managers of the Lehigh Coal and Navigation Company** dated February 28th, 1888, page 11, as follows:—

"This contract has unified the interests of this Company with those of the Central Railroad Company to a

greater extent than has been found possible hitherto, so that any development which shall bring business to one company is likely to cause corresponding benefits to the other, and the energy and enterprise of the new management of the Central Railroad Company give promise of a profitable development of its business."

Government's counsel offer in evidence extract from House Document 1442, 62nd Congress, Third Session, entitled **"Increase in Prices of Anthracite Coal,"** pages 37 and 38.

MR. GORDON:—It is understood that the quotation there given is from the report of the Board of Managers of the Lehigh Coal and Navigation Company for the year 1911, pages 8, 9 and 10.

MR. REYNOLDS:—I object to any conclusion drawn by the clerical compiler of this House Document as to the meaning of the quotations of the reports of the boards of managers of the Lehigh Coal and Navigation Company being incorporated in the Record as evidence, as it is manifestly merely a conclusion, hearsay, and incompetent.

MR. GORDON:—It is also understood that this report was prepared under the direction of Mr. Nagel, the Commissioner of Labor.

MR. REYNOLDS:—The objection is made to any deductions of Mr. Nagel, Commissioner of Labor, as being manifestly conclusions, hearsay, improper evidence, and incompetent.

The extract offered is as follows:—

"With relation to this question of coal-land depletion funds, the experience of company E is of significance. This experience, which is best related in the reports of the board of managers of the company, extracts from which are given below, may be briefly summed up as showing that the deduction of 5 cents a ton on its production for five years was sufficient to create a fund, which, com-

pounded at 4 per cent. for 40 years without further additions, would equal the actual cost of the company's coal lands.

REPORT OF THE BOARD OF MANAGERS OF COMPANY E FOR YEAR ENDING DECEMBER 31, 1905.

For many years the company has made a deduction from its net revenue before paying dividends of an annual sum under the head of sinking fund, based on a charge of 5 cents a ton on the coal sent to market from its coal lands. This money has been invested in various forms of property now included in the company's assets, but no separate account has been kept of the same. After due consideration your board of managers has directed that a charge should be made in this year's accounts and the proceeds invested in interest-bearing securities and that the securities and the interest received on them should be kept separate and apart as a distinct fund. In accordance therewith, the sum of $121,415 has been deducted from the net revenue of the company for the year 1905 and $121,000 thereof invested in 5 per cent. bonds. * * * In this connection it is of interest to note that if a similar plan had been followed since the first shipment of coal by this company in 1820 and the interest compounded at 4 per cent. the resultant sum would be over $9,000,000, or enough to wipe out all the capital charges now on the company's balance sheet representing coal lands, coal improvements, opened work, and mining equipment.

The coal-lands sinking fund at 5 cents a ton will, it is estimated, at 4 per cent. compound interest create a fund which will in less than 30 years be sufficient to wipe out all the charges on the balance sheet, amounting to $9,066,770, representing our investment in coal lands, coal improvements, opened work, and mining equipment. Experts estimate that the supply of coal now owned by this company will not be exhausted for over 170 years. It would therefore appear that this fund has ample margin.

Reliable and conservative estimates made of the unmined coal on the company's lands still available for market make a total of over 500,000,000 tons. At 1 cent per ton this tonnage would equal $5,000,000, or more than the sum of $4,891,232 at which our coal lands are carried on the balance sheet. The above valuation represents the cost of acquiring these lands many years ago, but their real value is very much in excess of this sum.

REPORT OF THE BOARD OF MANAGERS OF COMPANY E FOR YEAR ENDING DECEMBER 31, 1911.

The securities and cash set apart in the coal-lands sinking fund now amount to $1,031,131.07.

The increase of $43,388.23 during 1911 was derived entirely from income upon investments.

The fund has now reached such proportion that with the accretions due to the investment of its annual income at 4 per cent. it will in a period of 40 years equal the value at which our coal lands are carried upon the books of the company; and under the circumstances your board of managers is of the opinion that appropriations for this fund direct from income are no longer desirable."

Government's Counsel offer in evidence from the **Report of the Committee to investigate the condition of the Philadelphia and Reading Railroad Company and the Philadelphia and Reading Coal and Iron Company,** appointed January 12th, 1885 (being a part of the same document from which the exhibit on printed page 127 *et seq.* of the record was taken), the cover page; pages 1 and 2; and an extract from page 63.

MR. REYNOLDS:—The defendants object to the admission of this evidence as being incompetent, as against any of the defendants on this record, as irrelevant and immaterial, preceding, as it does, both the passage of the Anti-Trust Law and the re-organization of the Reading Companies.

The cover of said Report is as follows:—

"REPORT

of the

COMMITTEE TO INVESTIGATE

the Condition of

THE PHILADELPHIA & READING RAILROAD CO.

and

THE PHILADELPHIA & READING COAL AND IRON CO.,

Appointed January 12, 1885,

By

Direction of the Stockholders.

CHARLES H. T. COLLIS, *Chairman*,
JOHN L. LAWSON,
H. C. FORD,
F. F. MILNE,
ED. P. DWIGHT,
CHARLES D. FREEMAN."

Pages 1 and 2 of said Report are as follows:—

"To the

STOCKHOLDERS

of

THE PHILADELPHIA & READING
RAILROAD COMPANY.

PHILADELPHIA, December 28, 1885.

To the shareholders of The Philadelphia and Reading Railroad Company:

At your last annual meeting, held January 12, 1885, the following resolutions were unanimously passed:

Resolved, That the report of the Board of Directors, as just read, be printed in pamphlet form for the information of the shareholders, and that a committee of seven shareholders of the company, entirely disconnected from its management and operation, be appointed by the chairman of this meeting, and by him be requested to serve as a committee to examine the report, and examine into the condition of the company, to make an appraisement of the value of the roads, shops, machinery, real estate, depots, bonds, stocks and all other assets of the company; also to examine into the liabilities and obligations of the company, including all its guarantees for other lines, with the sources of revenue to meet the same; also its contracts and relations with other companies and parties of every kind; and to report the results of this examination to the shareholders in such form as said committee may deem most advisable for the interest and information of the shareholders, either by printed report for distribution, or at their option, by calling a meeting of the shareholders to present their report, giving thirty days' notice of such meeting by advertising in the usual form.

Resolved, That the president, managers and officers of the Company, and the receivers appointed by the Court, be requested to furnish such committee with all needful information, and facilities to enable them to accomplish the object of their appointment.

Resolved, That in the event of any of the shareholders declining or being unable to serve on the foregoing committee, the chairman of this meeting be authorized and requested to fill such vacancies by the appointment of other shareholders of this company, who may be in like

manner entirely disconnected from its management and operation.

In pursuance of this resolution, the undersigned, together with John Taylor, Esq., of London, were appointed said committee by Edward S. Whelen, Esq., the chairman of the meeting. It is to be regretted that Mr. Taylor has not been able to give your Committee the benefit of his knowledge and experience, owing to business engagements which prevented his visiting this country.

Your Committee not being clothed with power to expend money, and in fact not desiring to do so in the existing financial condition of the company, have confined their investigations to an examination of documents and books; an inspection of so much of the property as would enable them to form an accurate estimate of the condition of the whole; and an examination of the officers of the company superintending and directing the various departments thereof."

The extract from page 63 of said Report is as follows:—

"Conclusion.

In conclusion, if this report should prove to be most remarkable for the number of subjects it omits to discuss in detail, it must be borne in mind that your Committee was not raised at the suggestion of managers desiring to furnish the public with an exhaustive statement of their history and condition, but by the shareholders themselves who were in search of such information as ordinary but unskilled intelligence could procure. In the one case data is promptly furnished which makes compilation simple; in the other those who undertake the task have first to educate themselves as to the information most required, then to learn from whom to obtain it and finally to form a judgment upon data which at best may be but meagre. Your Committee desire to record the fact that the Receivers and officers of the company afforded them every opportunity to

obtain the information they needed, and at all times furnished them promptly with such statements as were called for.

Under the authority of your resolution we submit this result of our investigations, by "printed report for distribution," and this concludes our labors and dissolves the Committee.

Respectfully,

CHARLES H. T. COLLIS,
Chairman.
JOHN L. LAWSON,
CHARLES D. FREEMAN,
H. C. FORD,
E. P. DWIGHT,
F. F. MILNE."

Government's counsel offer in evidence, from the report of the Philadelphia and Reading Railroad Company and the Philadelphia and Reading Coal and Iron Company, Appendix page 1-L, a statement from the balance sheet dated February 28, 1893, of the Philadelphia and Reading Railroad Company and the Philadelphia and Reading Coal and Iron Company, as follows:—

"PHILADELPHIA AND READING COAL AND IRON CO.

	DR.	CR.
To Freight and Tolls	$5,699,715.23	
To Guaranteed Interest	217,260.00	
By Special Loan Account		$2,681,076.15
By Sundries (Interest)		20,930.00
By Finance Company of Pennsylvania for amount due it for supply coal		882,064.55
By Balance		2,332,904.53
	$5,916,975.23	$5,916,975.23

Government's counsel offer in evidence **General Mortgage of Reading Company and the Philadelphia and Reading Coal and Iron Company** to Central Trust Company of New York, Trustee, dated January 5, 1897, as follows:—

PREAMBLE.

This Indenture, made this fifth day of January, in the year one thousand eight hundred and ninety-seven, between

READING COMPANY, a corporation created by and existing under the laws of Pennsylvania, party of the first part, and

THE PHILADELPHIA AND READING COAL AND IRON COMPANY, a corporation created by and existing under the laws of Pennsylvania, hereinafter called the "Coal Company," party of the second part, said two parties being hereinafter called the "Companies," and

CENTRAL TRUST COMPANY, of New York, a corporation created by and existing under the laws of the State of New York, hereinafter called the "Trustee," party of the third part.

Acquisition by Reading Company from C. H. Coster, F. L. Stetson and J. P. Morgan & Co.

WHEREAS, the Reading Company, party of the first part, owns, possesses and controls divers estates, lands, properties, rights, privileges, franchises, bonds and shares of capital stock, including capital stock of the Philadelphia and Reading Railway Company and capital stock of The Philadelphia and Reading Coal and Iron Company; all of which have been received by the Reading Company, by, under and in pursuance of certain deeds of conveyance and transfer, made or authorized by Charles H. Coster and Francis Lynde Stetson, or by the said Charles H. Coster, Francis Lynde Stetson and J. P. Morgan & Co.; and

Acquisition by Coal Company from C. H. Coster and F. L. Stetson

WHEREAS, the Coal Company, party of the second part, owns coal lands, and other real estate, and certain railroads and branches, mines, collieries, breakers, engines, workshops, tenements and hereditaments, yards, depots, wharves and equipment; all of which have been received by the Coal Company,

by, under and in pursuance of certain deeds of conveyance and transfer, made or authorized by Charles H. Coster and Francis Lynde Stetson; and

ch acquisitions conditioned on the execution d delivery the bonds both Companies as ovided in is mortge.

WHEREAS, All such properties have been received by the Reading Company and by the Coal Company, severally and respectively, under and upon their several and respective promises and agreements, among other things, to make, execute and issue the joint and several bonds of the Reading Company and of the Coal Company as herein provided, including a limited issue thereof from time to time to be made to J. P. Morgan & Co., or their survivors and successors, and further issues thereafter to be made for the redemption and acquisition of bonds and stocks and equipment liens, and for new acquisitions, constructions and betterments, and other purposes, all as herein provided; and

ubject to rtain existg liens and ligations the P. & . R. Co.

WHEREAS, portions of the real estate and equipment of the Reading Company are subject to the lien of certain mortgages and equipment obligations heretofore made by The Philadelphia and Reading Railroad Company, of which mortgages some are liens also upon certain of the property now of the Philadelphia and Reading Railway Company; and

ubject to rtain liens d obligaons of the . & R. C. & Co.

WHEREAS, portions of the lands of The Philadelphia and Reading Coal and Iron Company (hereinafter called the "Coal Company") are, or, on January 1st, 1897, were, subject to a mortgage securing a bond of $30,000,000, pledged as collateral as hereinafter stated, and were also subject to mortgages, for an aggregate principal sum of $12,050,606.46, as follows:

Loan.	Lands Mortgaged to Secure Bonds.	Bonds Outstanding.	Due.	
West Point	Putnam County (N. Y.) iron ore lands	$204,000 00	June 1, 1884	P. & R. C. & I. Co. Undisturbed Mortgages.
Farquhar	Raudenbush and Struphauer tracts	110,000 00	Nov. 1, 1888	
Richardson	Catharine Groh tract	346,000 00	Jan. 1, 1897	
Carey Hart *et al*	St. Clair tract	273,000 00	"	
Beatty	Eagle Hill tract	40,000 00	"	
Charles Baber	" &c., tract	106,000 00	"	
Mattson	" "	30,000 00	"	
Wetherill	Lee Lands, Oak Hill tract	347,000 00	"	
Brady	Brady, Gray, and Wetherill tracts	187,000 00	"	
Locust Mountain	Locust Mountain Summit Improvement Co. lands	222,000 00	"	
Tamaqua	Tamaqua Company's lands	1,596,000 00	"	
Munson and Williams	Munson and Williams lands	800,000 00	Feb. 1, 1897	
Glentworth	Glentworth tract	203,000 00	March 1, 1897	
William Bowers *et al*	William Jones tract	153,000 00	April 1, 1897	
Philadelphia and Mahanoy	Philadelphia and Mahanoy Coal Company	512,000 00	"	
Shamokin and Bear Valley	Shamokin and Bear Valley Coal Company	283,000 00	"	
Swatara	Swatara Company's lands	970,000 00	"	
Van Reed	Big Schall tract	22,000 00	May 1, 1897	
Lessig	West Flowery Field tract	17,000 00	"	
Cummings	Reed tract	18,000 00	June 1, 1897	
Merino	"	18,000 00	"	
Wood	Wood estate	49,000 00	"	
Walker	Hartman and Myer, &c., tracts	145,000 00	"	
Forbes and Delano	Forbes and Delano, &c., tracts	509,000 00	"	
Mt. Carmel	Mt. Carmel Locust Mountain Coal Company	325,000 00	July 1, 1897	
Joseph Jeanes	Minersville estate	136,000 00	July 6, 1897	
Dale	Diamond tract	26,000 00	"	
Hammett	McNeal tract	104,000 00	Aug. 1, 1897	
Hughes	Hartman and Myer tract	13,000 00	Sept. 2, 1897	
C. Tower	Houtz and Myer and Kinnear tracts	231,000 00	Oct. 1, 1897	
S. Huston	Fishing Creek Improvement Company	460,000 00	Nov. 1, 1897	
Helfenstein	Helfenstein tract	408,000 00	"	
Ahl	Big Pond Furnace estate	91,000 00	"	

Loan.	Lands Mortgaged to Secure Bonds.	Bonds Outstanding.	Due.
Hartman and Myer	Hartman and Myer tract	$20,000 00	Dec. 1, 1897
Hart Lea *et al.*	Coal Hill estate	61,000 00	Jan. 1, 1898
Kemble	Gunkle and Branham tract	15,000 00	"
Big Mountain	Big Mountain Improvement Company	111,000 00	"
Jackson	McNeal tract	44,000 00	Feb. 1, 1898
Isaac May	Rockafeller tract	33,000 00	May 1, 1898
Riehle	Ely and Riehle tract	160,000 00	May 16, 1898
Valley Furnace	Valley Furnace estate	1,240,000 00	July 1, 1899
Albright	Western real estate	296,000 00	Mch. 1, 1902
Chandler	Salem Coal Company's lands	150,000 00	April 1, 1902
Little Schuylkill Navigation	Tamaqua Company's lands	152,000 00	Oct. 1, 1902
Leonard Reed	Leonard Reed tract	24,500 00	Mch. 1, 1903
Krause	Summit lands	357,000 00	April 1, 1904
Total		$11,617,500 00	

Loans.	Real Estate Bonds.	Bonds Outstanding.	Due.
Insurance Company of North America	Pottsville shops	$60,000 00	Now due.
Emily Hewson	McNeal tract	10,000 00	"
Ella Hewson	"	10,000 00	"
Jane B. Hewson	"	10,000 00	"
Executors estate James Dundas, deceased	Catharine Groh tract	55,000 00	"
Biddle Meredith *et al.*	Lewis, Farmer or Bell tract	10,000 00	"
New York Life Insurance Company	Adams Street Yard, Brooklyn, N. Y.	40,000 00	"
Jabez Sparks	Coal Street lots, Pottsville, Pa.	8,500 00	"
C. W. Barker	Coal Street lots, Pottsville, Pa.	4,000 00	"
H. Guiterman	Tuscarora tract	4,239 46	"
Locust Dale Coal Company	Locust Dale estate	156,000 00	Oct. 1, 1886
Bechtelsville Iron Company	Bechtelsville furnace	58,000 00	Oct. 10, 1888
Amanda Grim	Porter Township property	7,000 00	July 11, 1900
Mary Fisher, dower	Lacy lot, Pottsville, Pa.	367 00	At death.
Total		$433,106 46	

& R. C. & Co. Undistributed Mortgage.

AND WHEREAS, at a meeting of the Board of Directors of the Reading Company, held at its office in the City of Philadelphia on the 23d day of December, in the year eighteen hundred and ninety-six, the draft of a mortgage or deed of trust in the form of this indenture was submitted and read, and a resolution in the following words was duly and unanimously adopted, viz.: Resolution of Reading Directors authorizing this mortgage 23 Dec., 1896.

Resolved. That the President and the Secretary of the Reading Company be, and they are hereby, authorized and directed, in its behalf and under the corporate seal, when approved by the stockholders, and in form substantially that now submitted to this Board, to execute and deliver a mortgage or deed of trust upon the property and franchises of the corporation, to be known as the "General Mortgage," to the Central Trust Company of New York, as trustee, to secure an issue of bonds for an aggregate principal sum not exceeding $135,000,000; the principal of such bonds to be payable in gold coin of the United States of the present standard of weight and fineness, on the first day of January, in the year 1997, at the office or agency of the Reading Company in the City of New York, with interest thereon at the rate of four per cent. per annum from January 1, 1897, payable semi-annually, at said office or agency, in like gold coin, on the first days of January and July in each year; such bonds to be issued and disposed of on the terms and conditions, for the purposes, and in the manner set forth in said form of mortgage; each and every of such bonds to be executed also by The Philadelphia and Reading Coal and Iron Company, and to be secured by the pledge of the property of that corporation, as set forth in the said form of mortgage.

AND WHEREAS, at a meeting of the Board of Directors of the Coal Company held at its office in the City of Philadelphia on the 23d day of December, in the year eighteen hundred and ninety-six, the draft of a mortgage or deed of trust in the form of this indenture was submitted and read, and a resolution in the following words was duly and unanimously adopted, viz.: Resolution of Coal Directors authorizing this mortgage 23 Dec., 1896.

Resolved. That in compliance with the obligation of this corporation, by it assumed as a condition of the acquisition and purchase of its property under the deed thereof from Charles H. Coster and Francis Lynde Stetson, dated November

18, 1896, the President and the Secretary of The Philadelphia and Reading Coal and Iron Company be, and they are hereby, authorized and directed, in its behalf and under the corporate seal, when approved by the stockholders, and in form substantially that now submitted to this Board, to execute and deliver a mortgage or deed of trust upon the property and franchises of the corporation, to be known as the General Mortgage, to Central Trust Company, of New York, as trustee, to secure an issue of bonds for an aggregate principal sum not exceeding $135,000,000, the principal of such bonds to be payable in gold coin of the United States of the present standard of weight and fineness, on the first day of January, in the year 1997, at the office or agency of the Reading Company, in the City of New York, with interest thereon at the rate of four per cent. per annum, from January 1, 1897, payable semi-annually at said office or agency in like gold coin on the first days of January and July in each year; such bonds to be issued and disposed of on the terms and conditions, for the purposes, and in the manner set forth in said form of mortgage; each and every of such bonds to be executed also by the Reading Company, and to be secured by the pledge of the property of that corporation, as set forth in the said form of mortgage.

Denominations and numbers of bonds.

AND WHEREAS, the bonds to be secured by this indenture are to be coupon bonds of the denomination of $1,000, numbered consecutively from M1 upwards, and registered bonds of the denominations of $500, $1,000, $5,000 and $10,000 numbered consecutively and respectively from D1, M1, VM1 and XM1 upwards, and all bonds, from time to time, as directed severally and respectively by the Board of Directors of the Reading Company and by the Board of Directors of the Coal Company, are to be executed in the names and on behalf of the said Companies jointly and severally and under their respective corporate seals by their respective Presidents, or any Vice-President, and their respective Secretaries, or Assistant Secretaries, and are to be substantially of the following tenor, to wit:

[FORM OF COUPON BONDS.]

No. $1,000. Form of Coupon Bonds.

UNITED STATES OF AMERICA.

STATE OF PENNSYLVANIA.

READING COMPANY, AND THE PHILADELPHIA AND READING COAL AND IRON COMPANY.

GENERAL MORTGAGE 4% GOLD BOND.

KNOW ALL MEN BY THESE PRESENTS, THAT READING COMPANY and THE PHILADELPHIA AND READING COAL AND IRON COMPANY, corporations of the State of Pennsylvania, hereinafter called the "Companies," for value received, jointly and severally promise to pay to the bearer, or, if registered, to the registered holder of this bond, One Thousand Dollars, gold coin of the United States of America of the present standard of weight and fineness, on the first day of January, in the year 1997, at the office or agency of the Reading Company, in the City of New York, N. Y., and to pay interest thereon at the rate of four per cent. per annum, from January 1, 1897, payable semi-annually at said office or agency, in like gold coin, on the first days of January and July in each year, but only upon presentation and surrender of the annexed coupons as they severally mature.

Both the principal and interest of this bond are payable without deduction for any tax or taxes of the United States or any State or Municipality thereof, which the Companies, or either of them, may be required to pay, or to retain therefrom, under any present or future law.

This bond is one of a series of coupon and registered bonds of the Companies known as "General Mortgage 4% Gold Bonds," duly authorized and approved by the Board of Directors and the Stockholders severally of each of the Companies, and issued and to be issued, to an amount not exceeding, in the aggregate, $135,000,000 at any one time outstanding; all of which bonds are issued under, and in pursuance of, and are equally secured by, a mortgage or deed of trust dated January 5th, 1897, executed by the Companies to the Central Trust Company of New York, a corporation of the State of New York, as Trustee, of all the property and franchises of the Companies mentioned in said mortgage or deed of trust, to which reference is hereby made for a description of the property and franchises mortgaged and the nature and extent of the security, and the rights of the holders of said bonds under the same, and the terms and conditions upon which said bonds are issued and secured.

This bond may be registered as to principal in the owner's name on the books of the Companies at the office or agency of the Reading Company in the City of New York, such registry being noted on the bond by the Companies' transfer agent, after which no transfer shall be valid unless made on the Companies' books by the registered owner and similarly noted on the bond; but the same may be discharged from registry by being transferred to bearer, after which transferability by delivery shall be restored; but it may again from time to time be registered or transferred to bearer as before; such registration, however, shall not affect the negotiability of the coupons by delivery merely. This bond is also exchangeable for registered bonds without coupons, as provided in said mortgage or deed of trust.

This bond shall not become obligatory for any purpose until it shall have been authenticated by the certificate, hereon endorsed, of the Trustee under said mortgage or deed of trust.

IN WITNESS WHEREOF, the Reading Company and The Philadelphia and Reading Coal and Iron Company severally have caused these presents to be signed by their respective Presidents or Vice-Presidents, and their respective corporate seals to be hereunto affixed, and to be attested by their respective Secretaries or Assistant Secretaries, and coupons for said interest, with the engraved signature of their respective Treasurers, to be attached hereunto this fifth day of January, 1897.

READING COMPANY,

By

President.

Attest:

Secretary.

THE PHILADELPHIA AND READING COAL AND IRON COMPANY,

By

President.

Attest:

Secretary.

[FORM OF REGISTERED BONDS.]

Form of registered bonds.

UNITED STATES OF AMERICA,

STATE OF PENNSYLVANIA.

READING COMPANY, AND THE PHILADELPHIA AND READING COAL AND IRON COMPANY.

GENERAL MORTGAGE 4% GOLD BOND.

No. $

KNOW ALL MEN BY THESE PRESENTS, that READING COMPANY and THE PHILADELPHIA AND READING COAL AND IRON COMPANY, corporations of the State of Pennsylvania, hereinafter called the "Companies," for value received, jointly and severally promise to pay or assigns, the sum of dollars, gold coin of the United States of America of the present standard of weight and fineness, on the first day of January, in the year 1997, at the office or agency of the Reading Company in the City of New York, and to pay interest thereon from the first day of January or July, as the case may be, next preceding the date hereof, at the rate of four per cent. per annum, payable semi-annually, in like gold coin, at said office or agency, on the first days of January and July in each year.

Both the principal and interest of this bond are payable without deduction for any tax or taxes of the United States or any State or Municipality thereof, which the Companies, or either of them, may be required to pay, or to retain therefrom, under any present or future law.

This bond is one of a series of coupon bonds and registered bonds of the Companies, known as "General Mortgage 4 Per Cent. Gold Bonds," duly authorized and approved by the Board of Directors and the Stockholders severally of each of the Companies, and issued and to be issued, to an amount not exceeding in the aggregate $135,000,000 at any one time outstanding; all of which Bonds are issued under and in pursuance of, and are equally secured by, a mortgage or deed of trust, dated January 5th, 1897, executed by the Companies to the Central Trust Company of New York, a corporation of the State of New York, as Trustee, of all the property and franchises of the Companies mentioned in said mortgage or deed of trust, to which reference is hereby made for a description of the property and franchises mortgaged, and the nature

and extent of the security, and the rights of the holders of said bonds, under the same, and the terms and conditions upon which said bonds are issued and secured.

This bond is transferable by the registered holder thereof, in person or by attorney duly authorized, on the books of the Companies at the office or agency of the Reading Company in the City of New York, upon surrender and cancellation of this bond, and a new registered bond will be issued to the transferee in exchange therefor, as provided in said mortgage or deed of trust, and on payment, if the Companies shall so require, of the charge therein provided for.

This bond shall not become obligatory for any purpose until it shall have been authenticated by the certificate, hereon endorsed, of the Trustee under said mortgage or deed of trust.

IN WITNESS WHEREOF, the Reading Company and The Philadelphia and Reading Coal and Iron Company severally have caused these presents to be signed by their respective Presidents or Vice-Presidents, and their respective corporate seals to be hereunto affixed and attested by their respective Secretaries or Assistant Secretaries this day of

READING COMPANY,
By

President.

Attest:

Secretary.

THE PHILADELPHIA AND READING COAL AND IRON COMPANY,
By

President.

Attest:

Secretary.

AND WHEREAS, there are to be annexed to the said coupon bonds, at the time of the issue thereof, the coupons representing the semi-annual interest installments which may become due thereon to and including the first day of January, 1997, each of which coupons is to be substantially of the following tenor:

[FORM OF INTEREST COUPON, OF WHICH THE FIRST IS TO BE PAYABLE JULY 1, 1897.] Form of Coupons.

No. $

On the first day of , , Reading Company and The Philadelphia and Reading Coal and Iron Company will pay to bearer at the office or agency of the Reading Company in the City of New York, N. Y., Twenty dollars gold coin, without deduction for taxes, being six months' interest then due on their General Mortgage Gold Bond No.

Treasurer of Reading Company.

Treasurer of The P. & R. C. & I. Co.

AND WHEREAS, the coupons to be attached to said bonds are to be authenticated by the engraved signature of the present Treasurer or of any future Treasurer, respectively, of the two several Companies, it being intended that each of the Companies may adopt and use for that purpose the engraved signature of any person who shall have been its Treasurer, notwithstanding the fact that he may have ceased to be such Treasurer at the time when such bonds shall be actually certified and delivered, or when such coupons shall be attached to the bonds; Authentication of Coupons.

AND WHEREAS, there is to be endorsed on each of such bonds a certificate of the Trustee that it is one of the General Mortgage Gold Bonds herein described, and no bond will be valid or obligatory for any purpose until such certificate shall have been executed by the Trustee, such certificate to be substantially of the following tenor, viz.:

[FORM OF TRUSTEE'S CERTIFICATE.] Form of Trustee's Certificate.

This bond is one of the series of General Mortgage Gold Bonds described in the within-mentioned Mortgage or Deed of Trust executed by the Reading Company and The Philadelphia and Reading Coal and Iron Company to the undersigned.

CENTRAL TRUST COMPANY OF NEW YORK,
Trustee.

By

Vice-President.

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, 1897.

AND WHEREAS, at a meeting of the stockholders of the Reading Company, held at Philadelphia, in the State of Pennsylvania, on the fifth day of January, 1897, at which the holders of all the shares of its capital stock were present or represented by proxy, it was duly and unanimously resolved that the execution and delivery of a mortgage or deed of trust upon the property and franchises of the Reading Company under and in accordance with the above-recited resolution of the board of directors of the Reading Company, adopted on the twenty-third day of December, 1896, be approved and authorized and that such mortgage or deed of trust be in the form of this indenture;

Stock-
rs' ap-
, 1897.

AND WHEREAS, at a meeting of the stockholders of the Coal Company, held at Philadelphia, in the State of Pennsylvania, on the fifth day of January, 1897, at which the holders of all the shares of its capital stock were present or represented by proxy, it was duly and unanimously resolved that the execution and delivery of a mortgage or deed of trust upon the property and franchises of the Coal Company under and in accordance with the above-recited resolution of the board of directors of the Coal Company, adopted on the twenty-third day of December, 1896, be approved and authorized and that such mortgage or deed of trust be in the form of this indenture;

ting
e.

Now, therefore, this indenture witnesseth:

That in order to secure the payment of the principal and interest of all such bonds at any time issued and outstanding under this indenture, according to their tenor and effect, and the performance of all the covenants and conditions herein contained, and to declare the terms and conditions upon which such bonds are issued and received, and in consideration of the premises and of the purchase and acceptance of such bonds by the holders thereof, and of the sum of one dollar to each of

the Companies severally and respectively duly paid by the Trustee at or before the ensealing and delivery of these presents, the receipt whereof is hereby severally acknowledged:

(1) **The Reading Company**, party of the first part, has granted, bargained, sold, aliened, remised, released, conveyed, confirmed, assigned, transferred and set over, and by these presents does grant, bargain, sell, alien, remise, release, convey, confirm, assign, transfer and set over, unto THE TRUSTEE, party of the third part, its successors and assigns forever:

Properties mortgaged by Reading Company.

ALL AND SINGULAR the following estates, lands, properties, rights, privileges and franchises, and bonds and shares of capital stock, viz.:

Real Estate acquired under deed of Dec. 23, 1896, from Coster & Stetson.

FIRST. ALL REAL ESTATE of every name and description formerly of The Philadelphia and Reading Railroad Company, to the extent that, and as, the same is described in several certain deeds dated December 23d, 1896, from Charles H. Coster and wife and Francis Lynde Stetson and wife to the Reading Company, to be recorded respectively in the several counties in the State of Pennsylvania in which the said real estate is situated; but not including any right of way, depots or yards formerly of the said Railroad Company, or formerly of any railroad by it held under lease, or any real estate appertaining to the railroad thereof; subject, however, to any and all liens, encumbrances and charges thereon.

P. & R. R. R. Co. Equipment.

SECOND. ALL LOCOMOTIVES, tenders, passenger cars, baggage cars, freight cars, coal cars, and all other engines, cars, carriages and rolling stock formerly of The Philadelphia and Reading Railroad Company.

P. & R. R. R. Co. Maine Equipment.

THIRD. ALL STEAM COLLIERS, VESSELS, canalboats and barges formerly of The Philadelphia and Reading Railroad Company, including specifically those enrolled in the office of the Collector of Customs of the Port of Philadelphia as having heretofore been transferred directly to the Reading Company

by Joseph S. Harris, Edward M. Paxson and John Lowber Welsh, Receivers (such transfers having been made at the request of Charles H. Coster and Francis Lynde Stetson), and including the barges which are registered in the name of the Provident Life and Trust Company as security for Car Trust Series D of The Philadelphia and Reading Railroad Company.

nds of her corpotions.

FOURTH. CERTAIN BONDS of the several following corporations, to be delivered to the Trustee as hereinafter provided, and for several aggregate principal sums as follows, viz.:

Philadelphia and Reading Railway Company	$20,000,000
Catawissa Railroad Company:	
10% Chattel Mortgage Bonds, 1868–1888	98,450
5% " " " 1880	24,500
7% Debenture Bonds, 1917	62,000
7% Improvement Mortgage Bonds	500,000
Camden County R. R. Co	39,000
Colebrookdale Railroad Company:	
Mortgage Bonds	593,400
Gettysburg & Harrisburg R. R. Co. Car Trusts	18,000
People's Railway Company	36,000
Perkiomen Railroad Company	161,100
Philadelphia, Reading & Pottsville Telegraph Co	200,000
Philadelphia & Chester Valley R. R. Co.:	
(*a*) Preferred	25,000
(*b*) Not Preferred	47,000
Philadelphia, Harrisburg & Pittsburg R. R. Co	1,472,000
Philadelphia, Newtown & New York R. R. Co	849,100
Pickering Valley Railroad Company:	
First Mortgage Loan	332,300
Reading & Columbia R. R. Co.:	
First Mortgage	9,500
Second "	35,000
Debentures	1,000,000
Schuylkill and Lehigh R. R. Co	108,300
Tamaqua, Hazleton & Northern R. R. Co	300,000
Schuylkill Navigation Company:	
Loan, 1872	1,685,590
" 1882	3,940,646
Improvement Loan (Loan of 1880)	228,000
Loan of 1895	1,181,000
Boat and Car Loans	1,320,050

Together with such overdue coupons belonging to any such bonds as shall at any time be delivered to the Trustee.

FIFTH. THE FOLLOWING SHARES OF CAPITAL STOCK NOW BELONGING to the Reading Company for which proper certificates are to be transferred, either by the Reading Company or by the record holder of the certificates for such shares, to the Trustee as hereinafter provided: Stock of other corporations

I.

Shares of capital stock, being in each instance the entire outstanding capital stock of the company (other than such shares as are reserved to qualify directors): I. Total stock of other corporations.

	Shares.	Par Value.
Philadelphia & Reading Railway Co	399,900	$19,995,000
Philadelphia & Reading Coal & Iron Co	159,900	7,995,000
Chester & Delaware River R. R. Co	750	37,500
Danville & Shamokin R. R. Co	4,900	245,000
Delaware River Ferry Co of New Jersey	4,900	490,000
Middletown & Hummelstown R. R. Co	3,400	170,000
Norristown Junction R. R. Co	350	17,500
Philadelphia & Frankford R. R. Co	9,979	498,950
Philadelphia, Reading & Pottsville Telegraph Co	369	18,450
Philadelphia & Reading Terminal R. R. Co	169,950	8,497,500
Philadelphia, Harrisburg & Pittsburg R. R. Co	39,900	1,995,000
Port Reading R. R. Co	15,550	1,555,000
Rupert & Bloomsburg R. R. Co	960	48,000
Schuylkill and Lehigh Railroad Company	960	48,000
Shamokin, Sunbury & Lewisburg R. R. Co	39,900	1,995,000
Tamaqua, Hazleton & Northern R. R. Co	5,900	295,000
Reading Iron Company	9,980	998,000

II.

Shares of capital stock, being in each instance more than one-half of the entire outstanding capital stock of the company mentioned: II. Majority stock of other corporations.

	Shares.	Par Value.
Atlantic City Railroad Company:		
(*a*) Preferred	19,971	$998,550
(*b*) Common	23,900	1,195,000
Allentown Railroad Company	21,428	1,071,400
Catasauqua & Fogelsville R. R. Co	10,065	251,625
Colebrookdale Railroad Company	5,530	276,500
Camden County Railroad Company	1,000	50,000
East Mahanoy Railroad Company	5,600	280,000
East Pennsylvania Railroad Company	17,500	875,000
Gettysburg & Harrisburg R. R. Co	10,700	535,000
North-east Pennsylvania R. R	6,300	315,000
Pickering Valley Railroad Company	1,200	60,000
Philadelphia & Chester Valley R. R. Co.:		
(*a*) Preferred	4,102	205,100
(*b*) Common	9,000	450,000
Reading and Columbia Railroad Company	15,700	785,000

III.

I. Minority stock of other corporations.

Miscellaneous shares of capital stock:

	Shares.	Par Value.
Catawissa Railroad Company:		
(*a*) First preferred	228	$11,400
(*b*) Second preferred	310	15,500
Central Dock & Terminal Ry. Co	1,816	181,600
Junction Railroad Company	1,718	85,900
Mine Hill & Schuylkill Haven R. R. Co	1,620	81,000
Mill Creek & Mine Hill Navigation & R. R. Co	1,900	47,500
Mount Carbon & Port Carbon R. R. Co	750	37,500
North Pennsylvania Railroad Company	2,576	128,800
Philadelphia Belt Line R. R. Co., preferred	1,560	78,000
People's Railway Company of Pottsville	2,675	53,500
Schuylkill Valley Navigation & R. R. Co	1,220	61,000
Swede's Ford Bridge Company	360	9,000
Slatington Railroad Company	3,900	19,500

All interest of Reading Company, now or hereafter held in other shares of above corporations.

SIXTH. ALL RIGHT, TITLE AND INTEREST of the Reading Company, whether now held or hereafter acquired, in or to any and all other shares of stock of any of the companies above enumerated in Subdivision Fifth.

All other property of Reading Company as acquired by

SEVENTH. ALL STOCKS, BONDS, CERTIFICATES of indebtedness, claims and other property of every name and nature, now owned or hereafter acquired by the Reading Company which

by any of the provisions of this indenture, it is required to pledge, assign or transfer to the Trustee. provisions of this mortgage.

EIGHTH. ALL PROPERTY OF EVERY NAME and nature, from time to time hereafter, by delivery or by writing of any kind, for the purposes hereof, pledged, assigned or transferred by the Reading Company or by any one in its behalf to the Trustee, which is hereby authorized to receive any property, at any and all times, as and for additional security, and also, when and as hereinafter provided, as substituted security, for the payment of bonds issued or to be issued hereunder, and to hold and apply any and all such property subject to the terms hereof. All other property hereafter transferred to Trustee hereunder by Reading Company or by any one in its behalf.

NINTH. ALL ROLLING STOCK and EQUIPMENT of every description, including steam colliers, vessels, canalboats and barges (whether or not above specifically mentioned), now owned or hereafter acquired by the Reading Company; and All equipment and marine equipment now owned or hereafter acquired.

TENTH. ALL ESTATES, LANDS, PROPERTIES, rights, privileges and franchises, real, personal or mixed, hereafter acquired by the Reading Company, as appurtenant or incidental to, or in replacement of or substitution for, any of the mortgaged premises above described. All appurtenances to mortgaged premises.

To have and to hold, the premises, properties, real or personal, rights, franchises, estates, appurtenances, stocks and bonds hereby conveyed and assigned, or intended to be conveyed or assigned, by the Reading Company, unto the Trustee, its successor or successors and assigns forever, but upon the trusts hereinafter declared: Habendum in Trust.

And,

(2) **The Coal Company,** party of the second part, has granted, bargained, sold, aliened, remised, released, conveyed, confirmed, assigned, transferred and set over, and by these presents does grant, bargain, sell, alien, remise, release, convey,

confirm, assign, transfer and set over, unto THE TRUSTEE, party of the third part, its successors and assigns forever:

Properties mortgaged by Coal Company.

ALL AND SINGULAR the following estates, lands, leaseholds, properties, rights, privileges and franchises, and bonds and shares of capital stock, viz.:

All property acquired under deed of 18 November, 1896, from Coster & Stetson.

ELEVENTH. ALL AND SINGULAR the coal lands, iron-ore lands, and other real estate, and also all railroads and all branches, extensions, sidings and turnouts of any railroad, belonging to said The Philadelphia and Reading Coal and Iron Company, or now in any manner acquired or held by or for its benefit or in trust for it; and also all lands, mines, collieries, breakers, engines, workshops, machinery, offices, buildings, improvements, tenements and hereditaments by the said Coal Company owned, or in any manner acquired by it or for its benefit or in trust for it; and all yards, depots and wharves, including all right, title and interest of the said Coal Company or the Receivers thereof in such yards, depots and wharves; and all locomotives, tenders, coal cars and carriages and all other engines, cars, rolling stock, tools, implements, horses, mules and materials; and also all estate, right, title, interest, property, claim and demand of every nature and kind whatsoever of the Coal Company in such property; including all property of every kind specified in certain deeds of conveyance dated November 18, 1896, by Charles H. Coster and wife and Francis Lynde Stetson and wife to the Coal Company, reference being hereby made to the said several deeds for the further specification and identification of such property hereby granted and conveyed, or intended so to be;

TWELFTH. THE FOLLOWING BONDS, to be delivered to the Trustee as hereinafter provided:

	Par Value.
Preston Coal and Improvement 7% Mortgage Bonds	$1,087,000 00
Tremont Coal Co. 6% Mortgage Bonds	900,000 00
Mammoth Vein Coal and Iron Co. 8% Mortgage Bonds	209,000 00

Bonds of other Coal Companies.

THIRTEENTH. THE FOLLOWING SHARES OF CAPITAL STOCK now belonging to the Coal Company, for which proper certificates are to be transferred either by the Coal Company or by the record holder of the certificates for such shares to the Trustee as hereinafter provided:

Stock of other Coal Companies.

	Shares.	Par Value.
The Preston Coal & Improvement Co	56,647	$2,832,350 00
The Fulton Coal Company	63,507	317,535 00
The Locust Gap Improvement Co	52,492	524,920 00
The Tremont Coal Company	118,314	2,957,850 00
The Mammoth Vein Coal & Iron Company	60,386	603,860 00
The Delaware Coal Company	5,183	259,150 00

FOURTEENTH. ALL RIGHT, TITLE AND INTEREST of the Coal Company, whether now held or hereafter acquired, in or to any and all other shares of stock of any of the Companies above enumerated in Section Thirteenth.

All stock of such other Coal Companies hereafter acquired.

FIFTEENTH. ALL other property connected with, or in any way appurtenant to, the business of the said Coal Company, whether such property be now held or hereafter acquired.

All appurtenances to mortgaged premises.

SIXTEENTH. ALL STOCKS, BONDS, certificates of indebtedness, claims and other property of every name and nature, now owned or hereafter acquired by the Coal Company which, by any of the provisions of this indenture, it is required to pledge, assign or transfer to the Trustee; and

All other property of Coal Company as required by provisions of this mortgage.

SEVENTEENTH. ALL PROPERTY OF EVERY NAME and nature from time to time hereafter, by delivery or by writing of any kind, for the purposes hereof, pledged, assigned or transferred by the Coal Company or by any one in its behalf to the

All other property hereafter transfer to Trustee by Coal Com-

pany or by any one in its behalf.

Trustee, which is hereby authorized to receive any property, at any and all times, as and for additional security, and also, when and as hereinafter provided, as substituted security, for the payment of the bonds issued or to be issued hereunder, and to hold and apply any and all such property subject to the terms hereof.

Habendum in Trust.

TO HAVE AND TO HOLD the premises, properties, real or personal, rights, franchises, estates, appurtenances, stocks and bonds hereby conveyed and assigned, or intended so to be, by the Coal Company, unto the Trustee, its successor or successors and assigns forever, but upon the trusts hereinafter declared.

Subject to certain undisturbed mortgages of P. & R. R. R. Co. and P. & R. C. & I. Co.

Subject, as to certain portions of the property hereby mortgaged and conveyed, to the herein recited mortgages of said The Philadelphia and Reading Railroad Company and said The Philadelphia and Reading Coal and Iron Company so far as such mortgages respectively cover such property; and

Subject, also, to all obligations incurred by Coster or Stetson or J. P. Morgan & Co.

Subject, as to any and all of the property hereby granted and conveyed, to all the liabilities, liens, charges and obligations, of every name and nature, reserved by or contained in the several deeds and transfers of any such property to the Reading Company or to the Coal Company, respectively, by Charles H. Coster and Francis Lynde Stetson or J. P. Morgan & Co., Managers, or in the several agreements mentioned in said deeds and transfers, as a consideration or condition thereof:

Habendum in Trust for bondholders.

But, as to all property hereby or hereunder conveyed or pledged, in trust nevertheless, for the equal and proportionate benefit and security of all present and future holders of the bonds and interest obligations issued and to be issued under and secured by this indenture, and for the enforcement of the payment of said bonds and interest obligations, when payable, and the performance of, and compliance with,

the covenants and conditions of this indenture; without preference, priority or distinction as to lien or otherwise of any one bond over any other bond by reason of priority in the issue or negotiation thereof, so that each and every bond issued and to be issued as aforesaid, shall have the same right, lien and privilege under and by this indenture, and so that the principal and interest of every such bond shall, subject to the terms hereof, be equally and proportionately secured hereby, as if all had been made, executed, delivered and negotiated simultaneously with the execution and delivery of this indenture; it being intended that the lien and security of this indenture shall take effect from the day of the date hereof without regard to the date of actual issue, sale or disposition of said bonds as though, upon such day, all of said bonds were actually issued, sold and delivered to, and in the hands of, innocent holders for value.

AND IT IS HEREBY EXPRESSLY COVENANTED that all such bonds and the coupons for interest thereon are to be issued, certified, and delivered, and that the mortgaged premises are to be held by the Trustee subject to the further covenants, conditions, uses and trusts hereinafter set forth; and it is covenanted between the parties hereto as follows, viz.:

ARTICLE ONE.

Certification of Bonds.

ISSUE AND CERTIFICATION OF BONDS.

SECTION 1. All bonds to be secured hereby shall, from time to time, be executed and delivered by the Companies to the Trustee for certification, and thereupon the Trustee shall certify and deliver the same as provided in this Article, and not otherwise. The aggregate amount of bonds issued and outstanding under this indenture at any one time shall never exceed the principal sum of **$135,000,000.**

Total authorized issue limited to $135,000,000

Only such bonds as shall bear thereon endorsed the Trustee's certificate by it duly executed shall be secured by this indenture, or shall be entitled to any line or benefit hereunder; and every such certificate of the Trustee upon any bond executed in the behalf of the Companies shall be conclusive evidence that the bond so certified has been duly issued hereunder and is entitled to the benefit of the trust hereby created. On request of the Companies, such certificates shall be made and bonds shall be delivered hereunder in advance of registration or record of this indenture; but the Companies shall cause record of this indenture as a mortgage upon real estate, and upon boats and marine equipment, to be made with all convenient speed.

Bonds and Stock enumerated in Subd. 4 & 5, pages 14–16 to be transferred to Trustee immediately; excepting certain to be transferred when released from pledge.

The bonds and the certificates for shares specifically enumerated in Subdivisions Fourth and Fifth of the granting clauses hereof as by the Reading Company to be transferred to the Trustee hereunder, shall, prior to the certification of any bonds hereunder, be assigned and delivered to, and pledged with, the Trustee under this indenture; excepting, however, $200,000 par value of the bonds of the Philadelphia, Harrisburg and Pittsburgh Railroad Company, of which $100,000 are held as security for the Barge loan of The Philadelphia and Reading Railroad Company, and $100,000 for the Coal Storage loan of the Receivers of The Philadelphia and Reading Railroad Company and The Philadelphia and Reading Coal and Iron Company; $500,000 Improvement Mortgage bonds of the Catawissa Railroad Company which are held by

the City of Philadelphia as part security for the bond of The Philadelphia and Reading Railroad Company filed in connection with the construction of the subway; $8,497,500 par value of the stock of the Philadelphia and Reading Terminal Company, which is held as security for the so-called "Terminal" loan; and $498,950 par value of the stock of the Philadelphia and Frankford Railroad Company, which is held under an agreement dated January 29, 1894, between The Philadelphia and Reading Railroad Company and others and Geroge H. Earle, Jr., and others, Committee, &c. These bonds and stocks shall respectively be delivered to and pledged with the Trustee immediately when and as released from the respective pledges or agreements under which they are now severally held.

Certain shares enumerated on p. 19 to be transferred immediately to Trustee.

Of the shares specifically enumerated in the granting clauses hereof as by the Coal Company transferred to the Trustee hereunder, proper certificates for

4,042 shares of the Locust Gap Improvement Company;
13,916 shares of the Mammoth Vein Coal and Iron Company;
467 shares of the Delaware Coal Company;
3,835 shares of the Fulton Coal Company;
116 shares of the Tremont Coal Company;

shall be delivered to the Trustee prior to the certification of any bonds hereunder. The certificates for the remaining shares so enumerated shall be delivered to the Trustee immediately upon their release from the existing liens of The Philadelphia and Reading Railroad Company. The bonds so enumerated shall be delivered to the Trustee immediately upon their release from the lien of the Ten Year sinking fund loan of The Philadelphia and Reading Railroad Company, for which they are now held.

Other shares and bonds to be transferred when released from existing liens.

Before certifying or delivering any coupon bond hereby secured, the Trustee shall cut off and cancel all coupons thereof then matured; and the Trustee shall not certify or deliver any registered bond bearing interest from any date more than six months prior to such certification or delivery.

Over-due coupons to be cancelled.

$50,369,000 to be delivered immediately to J. P. Morgan & Co.

SEC. 2. Of the bonds authorized to be issued under and secured by this indenture, bonds to the amount of **fifty million three hundred and sixty-nine thousand dollers ($50,369,000),** immediately upon the execution or delivery hereof, or as soon as may be thereafter, shall by the Trustee be certified and delivered to the firm of J. P. Morgan & Co., or their survivors or successors, as Reorganization Managers, without accountability by said firm, or such survivors or successors, for the disposition or use thereof.

$64,631,000 to be reserved to take up "outstanding old bonds."

SEC. 3. Of the remainder of such authorized issue of bonds, there shall be reserved bonds to the amount of **sixty-four million six hundred and thirty-one thousand dollars (64,631,000),** for the purpose of providing for the acquisition by purchase or exchange, or for the redemption, as hereinafter provided, of the following bonds and ground rents (hereinafter called "outstanding old bonds"), viz.:

Bonds of The Philadelphia and Reading Railroad Company, now outstanding for the several following principal sums and generally or technically known as:

Prior Mortgage Bonds	$5,241,700
Consolidated Mortgage Bonds of 1871-1911	18,811,000
Improvement Mortgage Bonds of 1873-1897	9,364,000
Consolidated Mortgage Bonds of 1882, 1st series	5,767,042
Consolidated Mortgage Bonds of 1883, 2d series	1,535
Philadelphia and Reading Terminal Bonds	8,500,000
Ten Year Sinking Fund Bonds of 1892	1,774,000
Delaware River Terminal Bonds and Delaware River Terminal Extension Bonds	1,509,000
Ground rents and bonds of the Philadelphia and Reading Railroad Company secured by mortgage on Real Estate:	
Of which there are outstanding ground rents and bonds for the principal sum of	$1,612,063
Bonds of the Philadelphia & Reading Coal & Iron Co., generally known as Divisional Bonds:	
Of which upon January 1st, 1897, there were outstanding bonds (as hereinbefore recited) for the principal sum of	$12,050,606
	$64,630,946
or say	$64,631,000

The said $64,631,000 of bonds hereby secured and reserved for the acquisition, by purchase or exchange, or for the redemption, of the above-described outstanding old bonds shall be issued, certified and delivered, from time to time, when authorized by resolutions of the Board of Directors of the Reading Company, as follows and not otherwise, viz.: Conditions of issue of $64,631,000 bonds reserved to take up "outstanding old bonds."

(*a*) Whenever the Reading Company shall tender or cause to be tendered any of said outstanding old bonds (theretofore acquired by the Reading Company either by purchase, payment or otherwise), together with all unmatured interest obligations thereunto belonging, the Trustee hereunder shall receive the same, and in exchange therefor shall certify and deliver to the Reading Company, or upon its order, a like amount of the bonds hereby secured. Issue in exchange for "outstanding old bonds."

(*b*) Whenever the Reading Company, on or after the maturity of any such outstanding old bonds, or on or after a date eight months prior to the maturity of any such outstanding old bonds, shall tender or cause to be tendered, cash sufficient to purchase or to pay the same, or any part thereof, at par (and shall also provide to the satisfaction of the Trustee for any interest due upon such bonds or accruing before their maturity), the Trustee shall receive such cash, and in consideration thereof shall certify and deliver to the Reading Company or upon its order an equivalent amount at par of the said bonds hereby secured and reserved. Sale to purchase or to pay "outstanding old bonds."

All cash received by the Trustee under this subdivision of this Section shall by it be held and applied to the purchase or payment at par of an equivalent amount of the outstanding old bonds then unpaid, for the purchase or payment of which such cash shall have been deposited.

(*c*) Every outstanding old bond received by the Trustee under the foregoing provisions of this Section, unless such bond shall have been theretofore canceled pursuant to any provision of this Section, shall by it be stamped with the words "Not negotiable, but held in trust for "Outstanding Old Bonds" when received to be stamped.

"the purposes declared in the Mortgage of the Reading "Company and The Philadelphia and Reading Coal and Iron "Company, dated January 5th, 1897," and shall be held by the Trustee as purchaser, and, so far as may be, without extinguishment or impairment of lien, as additional security for the payment of the bonds hereby secured until called for payment under any provision of the mortgage securing such bond; but nevertheless the Trustee may, and upon demand of the Companies shall, cancel and surrender all of the outstanding old bonds of any issue by it held hereunder, upon receiving in lieu thereof the entire collateral or property then held as security for all the bonds of such issue, and immediately thereon the collateral or property so received by the Trustee shall become subject to the lien and to the provisions of this indenture.

"Outstanding old bonds" when acquired to be kept alive as additional security for the bonds secured by this mortgage.

The Companies shall provide and maintain, or cause to be provided and maintained, books wherein shall be registered as the property of the Trustee each and every such outstanding old bond so received by the Trustee; and except as herein expressly provided no such outstanding old bond shall be canceled, unless, at time of surrender, the holder thereof shall require cancellation as a condition of surrender, or unless, by resolution of its Board of Directors, before the delivery of such bond to the Trustee, the Reading Company shall determine that such cancellation is expedient; such determination to be within the absolute discretion of said Board. At any time, the Trustee may surrender any canceled outstanding old bond received or held by it pursuant to this section, to the trustee or the mortgagee, under any mortgage securing such bond, upon obtaining from such trustee or mortgagee suitable acknowledgment of such surrender; and thereafter such acknowledgment shall be held by the Trustee hereunder in lieu of the bond so surrendered.

"Outstanding old bonds" when acquired to be registered as property of Trustee without cancellation except as required.

Whenever through the operation of any sinking fund created either by any mortgage securing any of said outstanding

old bonds, or by any contract or other arrangement satisfactory to the Trustee hereunder, any of said outstanding old bonds, with all unmatured interest obligations thereto belonging, shall, after the date of this indenture, be paid or otherwise satisfied and canceled, or acquired for such sinking fund, then for each $1,000 of such bonds so paid or otherwise satisfied, and canceled, or so acquired for such sinking fund, the Trustee shall certify and deliver to the Reading Company or upon its order $1,000 par value of the said bonds hereby secured for each $1,000 of principal of such outstanding old bonds so paid or satisfied and canceled, or so acquired.

Reading Company entitled to receive bonds hereby secured to an amount equal to that of "outstanding old bonds" satisfied by sinking fund provisions upon sufficient proof of such satisfaction.

Certificates signed by the President, Treasurer, or Comptroller of the Reading Company, showing the amounts of outstanding old bonds, at any time or times subsequent to the date hereof, through the operation of such sinking fund, paid or otherwise satisfied, and canceled, or acquired, and any other facts necessary for any determination by the Trustee for any purpose of this Section, may be received by the Trustee as conclusive evidence of any of such facts therein set forth for the purposes of this Section, but the Trustee, in its discretion, may make such further inquiries and require such further evidence as to it may seem reasonable.

SEC. 4. The remainder of the authorized issue hereunder, amounting to **$20,000,000** of said bonds (except such portion of such remainder as shall be called for and certified and delivered prior to January 1st, 1898, as provided in paragraph (*6*) of this Section), shall be reserved, to be executed, and to be certified by the Trustee, not immediately, but only when and as called for by resolution of the Board of Directors of the Reading Company as next hereinafter provided, for the following purposes, or some one or more of them, viz.:

$20,000,000 bonds reserved for new acquisitions and betterments.

(*a*) For the acquisition of additional shares of stock of the Philadelphia and Reading Railway Company, and of additional

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(*a*) For acquisition of stocks and bonds of P. & R. Ry. Co.

bonds of said company to be issued under its mortgage dated November 18, 1896, *provided* that in every case of any such acquisition the par value of such bonds so acquired shall be at least equal to that of such shares so acquired; and that the aggregate par value of such bonds and shares so acquired shall be equal to that of the bonds hereby secured, used for the acquisition of such bonds and shares of the Philadelphia and Reading Railway Company.

(*b*) For acquisition or betterment of property appurtenant to those of Reading Company or of Coal Company subject to this mortgage, or as specified of certain other companies.

(*b*) For the construction or acquisition, on and after January 1st, 1897, of railway lines, extensions, terminal properties or rolling stock or for the construction or acquisition of other property on or after that date; or for the construction of betterments, on or after that date; all such construction, or betterments, or property acquired, to be upon, along, or appurtenant to the properties of the Reading Company at the time of such use subject to the lien of this indenture, or upon, along or appurtenant to lines of railway or other properties of the Coal Company at the time of such use subject to the lien of this indenture, or upon, along or appurtenant to lines of railway or terminal properties of some one or more of the other companies mentioned in Subdivision Fifth of the granting clauses hereof under the heading "I." or "II." or of some other company of whose capital stock more than one-half, at the time of such use, shall be pledged hereunder, it being intended that such lines, extensions or terminal properties, or other property may be constructed or acquired by and in the name of the Companies, or either of them, or by or for account of any such other company; or for the acquisition on or after January 1st, 1897, of shares, bonds or other obligations of any company owning any such line, extension, terminal property, rolling stock or other property (provided that any such acquisition of stock, either by itself, or in connection with the stock of such company previously pledged hereunder, shall constitute more than one-half of the total stock of such company, and provided further that, after the pledge of more than

one-half of the capital stock of any such company, no bonds, shares or other obligations of such company thereafter issued shall be acquired hereunder unless a sum equal to the entire proceeds of the bonds used therefor shall have been applied by such company to the acquisition or construction of new property or betterments); or

(c) To reimburse the Reading Company for outlays or advances by it made for, or to promote, any construction or acquisition made pursuant to (*a*) or (*b*) hereof on or subsequent to January 1st, 1897. (c) To reimburse Reading Company for such outlays.

The bonds reserved under this Section shall by the Trustee be certified and delivered to the Reading Company, or upon its order, as follows, and not otherwise, viz.: Conditions of Certification.

(*1*) Such bonds shall be certified and delivered by the Trustee from time to time only as and when it shall receive a copy of a resolution of the Board of Directors of the Reading Company, certified by its Secretary or Assistant Secretary, calling for the certification and delivery of such bonds, and stating that such bonds or their proceeds will be set aside separate and apart from all other assets and funds of the Reading Company, and will be used only for purposes authorized by this Section. Resolution of Reading Co. Directors required.

(*2*) On January 1, 1897, or on any day thereafter, prior to December 31, 1897, bonds to such amount as shall be called for in such resolution, but not exceeding in the aggregate $1,500,000, par value, shall be so certified and delivered. $1,500,000 to be certified in 1897.

(*3*) In each calendar year after December 31, 1897, there shall be so certified and delivered such additional amount of such bonds, not exceeding $1,500,000 par value in any calendar year, as, from time to time, shall be called for in similar resolutions; but in every instance, before certifying and delivering any of the bonds reserved under this Section (except Not over $1,500,000 per annum to be certified, and this not assimulative.

Conditions of annual issues of reserved bonds after 1897.

the $1,500,000 deliverable in the year 1897), the Trustee shall require the Reading Company to furnish, in addition to such resolutions of its Board of Directors, the verified certificate or certificates of some person or persons, stating as of his or their own knowledge:

Verified certificate as to specified use of all bonds certified and delivered under this section since last prior delivery hereunder.

(*a*) that all bonds certified and delivered under this Section since the last previous delivery under this Section, and the proceeds of all such bonds, have been used for such purposes, or for some one or more of them, or to reimburse the Reading Company as above provided, specifically indicating every such acquisition or construction of any railroad, track, structure, betterment, rolling stock or other property, and every such acquisition of bonds or stock of the Philadelphia and Reading Railway Company and every such acquisition of stock, bonds or other obligations of any other company owning any railroad or other property (which stock, bonds or other obligations shall be acquired only when a majority of the total capital stock of such company shall be thereby pledged as aforesaid unless previously thereto such majority shall have been acquired and pledged hereunder) and also stating in detail the amounts of bonds, or proceeds of bonds, used or expended for each and every such purpose, and whether such acquisition was by or in the name of the Companies or either of them, or by or for account of any other company as herein authorized; and also that no acquisition, construction, or expenditure stated in such certificate was stated in any previous certificate;

Only fair value to be paid in bonds.

(*b*) that the price paid in such bonds, or their proceeds, for any such construction, or acquisition (other than for bonds or shares of the Philadelphia and Reading Railway Company, as aforesaid), was not in excess of the fair value of the work done or property

acquired, and that the bonds included in such verified certificate were sold, disposed of, or otherwise accounted for, at not less than their fair market value at the time of such sale, disposition or accounting.

Bonds to be disposed of only at fair market value.

(c) In case of the acquisition hereunder of any new property in behalf of the Companies, or either of them (other than stocks, bonds or other obligations), every such verified certificate also shall state whether such property so acquired is known, or believed, to be subject to any lien or charge prior to this indenture, other than (1) the mortgages securing outstanding old bonds hereinbefore mentioned (or mortgages created in renewal or extension of any such existing mortgages), (2) the mortgage of the Coal Company securing its bond for $30,000,000 which is pledged as collateral security for some of said outstanding old bonds, (3) mortgage bonds, or other liens, or charges, held by the Trustee, or in respect of which, as hereinafter provided, bonds shall have been reserved hereunder, (4) mortgages now existing on the property of any company above mentioned under the headings "I." and "II." in Subdivision Fifth of the granting clauses hereof (or mortgages created in renewal or extension of any such existing mortgages), (5) any undetermined liens or charges incidental to construction, (6) ordinary operating accounts; and such verified certificates shall specify the amount of any such prior lien or charge (other than as aforesaid) known or believed to exist; and in case of the acquisition of any shares of the capital stock, bonds or other obligations of any company (except shares or bonds of the Philadelphia and Reading Railway Company) by the use of such bonds or their proceeds, every such verified certificate shall state whether the property of such company is known or believed to be subject to any lien or charge, and

Property acquired by reserved bonds except as specified to be free from prior charges except as specified.

whether such company is known or believed to have any indebtedness, except ordinary operating accounts, and except also, indebtedness to the Companies, and liens, charges and indebtedness held by the Trustee hereunder, or in respect of which bonds shall have been reserved hereunder, and excepting also mortgages now existing on the property of any company mentioned, as aforesaid, under the headings "I." and "II." in Subdivision Fifth of the granting clauses hereof, or mortgages created in extension or renewal of any such existing mortgages, such verified certificate in each instance specifying the amount of any such debt, lien or charge.

Any such verified certificate under this Section may state any other facts pertaining to the right to certify and deliver bonds hereunder.

Reserved Bonds not to be used to acquire property (with specified exceptions) in any one year, upon which prior liens or charges shall in aggregate exceed $2,000,000.

(4) The Companies shall not by use of any such bonds reserved under this Section, or their proceeds, in any one calendar year acquire or construct new property, or acquire shares in, or bonds or other obligations of, any other company (except shares or bonds of the Philadelphia and Reading Railway Company), if the amount of the mortgage or other liens and charges, prior to this indenture, upon such new property acquired or constructed in that year, and any and all indebtedness of such other Company or Companies (except the Philadelphia and Reading Railway Company) whose shares or bonds or other obligations shall be so acquired, shall in the aggregate exceed $2,000,000—excepting, however, the mortgages securing outstanding bonds of The Philadelphia and Reading Railroad Company and The Philadelphia and Reading Coal and Iron Company, or either of them (or mortgages created in renewal or extension of any such existing mortgages), the mortgage of the Coal Company for $30,000,000 which is held as collateral as afore-

said, the mortgages now existing on the property of any company mentioned as aforesaid under the headings "I." and "II." in Subdivision Fifth of the granting clauses hereof (or mortgages created in renewal or extension of any such existing mortgages), and any mortgage bonds, or other liens, charges or indebtedness held by the Trustee hereunder, or in respect of which, as hereinafter provided, bonds shall have been reserved in any previous calendar year, or years, and excepting also any undetermined liens or charges incidental to construction, any indebtedness of any such other company to the Companies, or either of them, and ordinary operating accounts.

Restrictions upon use of reserved bonds, for acquisition of property subject to liens, or of stock of company in debt.

In case there shall be acquired or constructed by use of such bonds, or their proceeds, any property subject to any such certified lien, charge or indebtedness, or in case by such use there shall be acquired any shares in, or bonds or other obligations of, a company (other than the Philadelphia and Reading Railway Company) certified as aforesaid to be indebted (not including, however, liens, charges and indebtedness of the classes above excepted), then during the continuance of such lien, charge or indebtedness, there shall be set apart out of the bonds reserved under this Section an amount at par equivalent to such certified liens, charges or indebtedness; and the bonds so set apart shall be taken from the $1,500,000 bonds under this Section deliverable in such calendar year, or in the next two succeeding calendar years, as may be agreed between the Reading Company and the Trustee. Thereafter the bonds so set apart shall, from time to time, be executed and certified, upon the order of the Reading Company, and delivered and used for the retirement or acquisition of such certified liens, charges or indebtedness in amounts equivalent at least to the par amount of the bonds certified and delivered therefor, and all the liens, charges or indebtedness so retired or acquired shall be canceled or, if practicable, shall be assigned to and held by the Trustee in such manner as, in its judgment, shall best protect the holders of the bonds hereby secured.

Certificates for reserved bonds to be accompanied by official Statement.

(5) Every such verified certificate, unless signed (1) by the President, or one of the Vice-Presidents, and (2) by the Comptroller, or Auditor, or Treasurer, of the Reading Company, shall be accompanied by a written statement of one of the officers first above designated and one of the officers secondly above designated of the Reading Company that they believe such certificate to be true, and that such bonds have not been used and the expenditures therein certified have not been made for ordinary maintenance of the property owned, leased, or in any way controlled by either of the Companies or for replacements or other purposes ordinarily treated by similar companies, or companies owning similar properties, as a part of their operating expenses. Together with such statements and verified certificates, there shall be delivered to the Trustee all bonds and certificates for all shares of stock so acquired, and such further instruments and conveyances as may be necessary to vest in the Trustee all new property so acquired, so far as the same shall have been acquired by or for the Companies, or either of them, and, so far as practicable, any and all other liens, charges or indebtedness taken up or acquired with the said bonds or their proceeds; and also the written opinion of counsel of the Reading Company to the effect that such instruments and conveyances are sufficient for that purpose, or that no instrument or conveyance is necessary. The certificates for all shares of stock so acquired shall be duly transferred into the name of the Trustee, and, if practicable, any bonds so acquired shall be transferred in like manner, or, if not susceptible of such transfer, shall be plainly endorsed as the property of the Trustee hereunder. Such resolutions, statements, verified certificates and opinion shall be deemed and taken as plenary authority to the said Trustee for its certification of such bonds under the foregoing provisions of this Article.

and also by opinion of Reading Company Counsel.

Stock and Bonds acquired by reserved bonds to be vested in Trustee.

(6) Except to retire or acquire liens, charges or indebtedness for which bonds so used shall have been reserved, as herein-

before provided, and except as provided further on in this paragraph, bonds shall not be issued or certified under this Section in excess of an aggregate amount of $1,500,000 in any one calendar year; *provided*, however, and the appropriation of such $20,000,000 bonds in and by this Section 4 is in all respects subject to the condition, hereby expressly declared, that if the before-mentioned J. P. Morgan & Co., or their survivors or successors, as such Reorganization Managers, from time to time, on or before January 1, 1898, by writing addressed to the Companies and to the Trustee, shall require the delivery to them, or upon their order or orders, of the whole or any part of $2,000,000 of said bonds, the Companies shall execute, and the Trustee shall certify and deliver to them, or upon their order or orders, bonds to the amount specified in such several requisitions to an aggregate amount not exceeding $2,000,000 of such bonds; it being intended that any such delivery shall be in addition to any deliveries under the foregoing provisions of this article, and shall not impair the preceding provision for delivery of the residue of the $20,000,000 of bonds to the Reading Company at various dates subsequent to December 31st, 1896.

Except as specified, not more than $1,500,000 reserved bonds to be issued hereunder in any one year.

Nevertheless, $2,000,000 reserved bonds may at any time in 1897 be issued to J. P. Morgan & Co. as Reorganization Managers.

SEC. 5. Whenever any coupon bond or bonds amounting to $1,000 or to any multiple of $1,000, together with all unmatured coupons thereto belonging, shall be surrendered for exchange for registered bonds, the Companies shall issue, and the Trustee shall certify and deliver, in exchange for such coupon bond or bonds, a like amount of registered bonds, without coupons. Such registered bonds shall be for $500, $1,000, $5,000 or $10,000, and shall bear interest at the same rate as the surrendered coupon bonds, and from the date of the last matured coupon thereof. In every case of such exchange the Trustee forthwith shall cancel the surrendered bond or bonds and coupons, and shall deliver the same to the Reading Company.

Issue of Registered bonds.

Whenever any such registered bond shall be surrendered for transfer, the Companies shall issue, and the Trustee shall certify and deliver, to the transferee, upon surrender and cancellation of the bond or bonds transferred, a like amount of new registered bonds; but no registered bond may be converted into a coupon bond.

For any exchange of coupon bonds for registered bonds, and for any transfer of registered bonds without coupons, the Companies, at their option, may make a charge not exceeding fifty cents for each new registered bond issued in exchange for any surrendered bond or bonds; but no charge shall be made for registration of the principal of coupon bonds.

Issues in lieu of bonds mutilated or destroyed.

In case any coupon bond issued hereunder, with the coupons thereto appertaining, or any registered bond without coupons, shall become mutilated or be destroyed, the Companies, in their discretion, may issue, and the Trustee thereupon shall certify and deliver, a new bond of like tenor and date, bearing the same serial number, in exchange and substitution for, and upon cancellation of, the mutilated coupon bond and its coupons, or the registered bond, or in lieu of, and substitution for, the coupon bond and its coupons, or the registered bond, so destroyed, upon receipt of satisfactory evidence of the destruction of such coupon bond and its coupons, or of such registered bond, and upon receipt also of satisfactory indemnity.

No rights conferred by this Indenture except upon the parties hereto and the bondholders.

SEC. 6. Nothing in this Article, or in any other Article, of this indenture expressed or implied, is intended, or shall be construed, to confer upon any person or corporation, other than the parties hereto and the holders of bonds secured by this indenture, any legal or equitable right, remedy or claim under or in respect of this indenture, or any covenant, condition or stipulation thereof; all its covenants, conditions and stipulations being intended to be, and being for the sole and exclusive benefit of the parties hereto and of the holders of bonds hereby secured.

Neither shall any covenant, condition, stipulation, penalty, right or remedy provided in or created by this indenture, apply to or become operative in respect, or for the benefit, of any of the Delaware River Terminal Bonds, or of the Delaware River Terminal Extension Bonds, mentioned in Section 3 of this Article One, unless or until the Reading Company, by writing addressed and delivered to the Trustee, shall withdraw and revoke this restriction.

No right conferred in respect of Delaware River Bonds.

ARTICLE TWO.

Covenants of Reading Company and Coal Company.

THE COMPANIES JOINTLY AND SEVERALLY COVENANT AS FOLLOWS:

SECTION 1. They will well, duly and punctually pay, or cause to be paid, to every holder of any bond issued and secured hereunder, the principal and interest accruing thereon, at the dates and place and in the manner mentioned in such bonds, and in the coupons thereto belonging, according to the true intent and meaning thereof, without deduction from either principal or interest for any tax or taxes imposed by the United States, or any State or Municipality thereof, which the Companies, or either of them, may be required to pay or to retain therefrom under or by reason of any present or future law. When and as paid, all coupons shall forthwith be canceled.

1. To pay principal and interest of bonds, free from tax, and to cancel paid coupons.

SEC. 2. All property of every kind, and all interest therein when and as and to the extent hereafter acquired, as above provided, out of bonds, or the proceeds of bonds, secured by this indenture, or out of other funds received pursuant to any provision hereof, immediately upon, and subject to the terms and conditions of, such acquisition, and without any further conveyance or assignment, shall become and be subject to the lien of this indenture as fully and completely as though now

2. To subject to lien of this mortgage new property acquired hereunder.

owned by the Companies, or either of them, and expressly and specifically conveyed by, and embraced in, the several granting clauses of this indenture; but at any and all times the Companies, and each of them, severally, will execute and deliver any and all such further assurances or conveyances thereof as the Trustee may reasonably direct or require, for the purpose of expressly and specifically subjecting the same to the lien of this indenture.

3. To execute further assurance

SEC. 3. Whenever demanded by the Trustee, the Companies, and each of them, severally and respectively, will grant, convey, confirm, assign, transfer and set over unto the Trustee, all real and personal estate, corporate rights and franchises which, in any way or manner, they, or either of them, shall acquire as incidental or appurtenant to, or for use upon, any property mortgaged hereunder, or to or upon the property of any company of which any stocks or bonds are or shall be pledged hereunder; and severally and respectively they will also do, execute, acknowledge and deliver, and cause to be done, executed, acknowledged and delivered, all and every such further acts, deeds, conveyances and transfers, and assurances in the law, for better assuring, conveying and confirming unto the Trustee all and singular the hereditaments and premises, estates and property hereby conveyed, or intended so to be, or which they, or either of them, have herein covenanted and agreed hereafter to convey to the Trustee, as the Trustee shall reasonably require for better accomplishing the provisions and purposes of this indenture, and for securing payment of the principal and interest of the bonds intended to be hereby secured; and whenever demanded by the Trustee, the Companies will endeavor to procure from all companies, of which the capital stock or the bonds or any part of either shall be pledged hereunder, all conveyances or assurances in law necessary to bring under the lien of this indenture any and all property connected with or incidental or appurtenant to the

property of any such company, constructed or acquired by use of any bonds reserved under Section 4 of Article One, or of any other funds received pursuant to any provision hereof.

But nothing expressed or implied in this indenture is intended, or shall be construed, to limit the right or power of the Companies, or of either of them, hereby expressly reserved, by the use of their credit or in any manner, except by the use of such reserved bonds, or funds received pursuant to any provision hereof, to construct or to acquire other property of any kind, or interests therein, free from the lien hereof.

4. To provide for registration.

SEC. 4. The Companies will, at an office or agency to be maintained by them in the City of New York, keep a sufficient register or registers of bonds issued hereunder, which registers at all reasonable times shall be open to the inspection of the Trustee; and, upon presentation for such purpose, they will, under such reasonable regulations as they may prescribe, register therein any coupon bonds and any bonds without coupons issued under the provisions hereof. As to all bonds so registered, the person in whose name the same shall be registered shall for all purposes of this indenture be deemed and regarded as the owner thereof, and thereafter payment of or on account of the principal of such bond, if it be a coupon bond, and of the principal and interest, if it be a registered bond without coupons, shall be made only to such registered holder or upon his order; but such registration may be changed as hereinafter provided. All such payments so made shall be valid and effectual to satisfy and discharge the liability upon such bond to the extent of the sum or sums so paid.

Registered holder to be deemed the owner.

Upon presentation of any such registered coupon bond, with a written power to transfer the same, executed by the registered holder, such bond shall be transferred upon such register, and thereafter the transferee or transferees of such bond upon such register shall be held to be the owner or owners thereof, and from time to time such transfers may be

Provisions as to registered bonds.

made as shall be so directed by the registered holder of any such bond for the time being. The registered holder of any such registered coupon bond shall have the right also to cause the same to be registered as payable to bearer, in which case transferability by delivery shall be restored, and thereafter the principal thereof shall be payable to any person presenting the same.

Any holder of a coupon bond registered to bearer may cause such bond to be registered in the name of such holder with the same effect as a first registration thereof; and successive registrations and transfers to bearer as aforesaid may be made from time to time as desired.

No registration of any coupon bond shall restrain the negotiability of any coupon thereto belonging, but every such coupon shall continue to pass by delivery merely.

Any registered bond without coupons may be transferred by instrument in writing executed by the registered holder upon surrender of the bond and payment of the charge for such transfer, in which case a like amount of new registered bonds will be issued to the transferee as provided in Section 5 of Article One hereof.

5. To pay interest on "outstanding old bonds" and to observe the covenants thereof.

SEC. 5. The Companies will duly, punctually and regularly pay or cause to be paid the interest on all outstanding bonds of The Philadelphia and Reading Railroad Company and of the Coal Company mentioned in Section 3 of Article One hereof until such bonds shall be paid and discharged, or shall have been acquired and pledged hereunder, and in the mean time they will observe, or will cause to observed, all the covenants, terms and conditions undertaken by or imposed upon said Railroad Company and said Coal Company respectively, by such bonds and by the several respective mortgages securing same. But nothing in this article or in any other article of this indenture is intended, or shall be construed, to require the Companies or either of them, not then being otherwise in default hereunder, to pay the principal of any such out-

Right reserved to take up or extend "outstanding old bonds."

standing bond during any period for which the same shall have been extended or renewed as next hereinafter provided; the right being hereby expressly reserved by each of the Companies severally and respectively in the discretion of their several Boards of Directors, from time to time, (1) to extend the time for the payment of the principal of any of said outstanding bonds, or (2) in substitution for any such outstanding bonds to issue new bonds of lien prior to this indenture; but not to increase the aggregate principal sum or the rate of interest of such outstanding bonds; though the principal and interest of all such new or extended bonds may be made expressly payable in gold coin of the United States of the present standard of weight and fineness; it being understood, however, that the $30,000,000 bond of the Coal Company above mentioned in Section 4 of Article One shall be extinguished and the mortgage securing the same shall be canceled, so soon as said bond shall be released from its pledge as collateral security for said outstanding old bonds, known as Consolidated Mortgage bonds of 1871–1911. Neither any action or acquiescence of the Companies in any such extension, renewal or substitution, nor any neglect by the Companies (not then being otherwise in default hereunder) to pay the principal of any such extended, renewed or substituted bond during any period for which such extension, substitution or renewal shall have been made, shall constitute a default or branch under any provision of this indenture.

Right to extend or to renew "outstanding old bonds" except as specified.

The Trustee shall, at all times, give all suitable proxies to carry out the purposes of this section.

SEC. 6. The Companies will not (except as above provided) voluntarily create or suffer to be created any lien or charge upon the mortgaged premises or any part thereof, or upon the income thereof, having priority to the lien of this indenture; and, within six months after the same shall accrue, they will pay all lawful claims and demands of mechanics,

6. Not to create or to suffer prior charges; and to pay claims given priority by law.

To discharge (except as specified) claims against underlying companies.

laborers and others, which, if unpaid, might by law be given priority to this indenture as a lien or charge upon the mortgaged premises or any part thereof, or the income thereof, and if any company, of whose capital stock the greater part now is or hereafter shall be pledged hereunder, shall create or suffer to be created any lien or charge upon its property or income, or create or suffer to be created any indebtedness, other than (1) mortgage or funded indebtedness as hereinafter permitted, (2) indebtedness of the Coal Company as hereinafter permitted, (3) indebtedness to the Companies or either of them, or (4) indebtedness for the current operating expenses of such company during a period not exceeding six months, then they, the Companies, will pay and discharge the same, or will acquire the same and transfer the same to the Trustee for the benefit of this mortgage.

May assume and discharge obligations in connection with "Subway" in Philadelphia.

Notwithstanding any contrary provision of this indenture, the Philadelphia and Reading Railway Company may assume any and all obligations of the Philadelphia and Reading Railroad Company to the City of Philadelphia in respect of the construction of the "Subway," so called, in said City, and may incur any and all further obligations to said City, necessary to procure the completion of such subway, and may effectively secure said City in respect thereof by charge upon its railroad and property or otherwise, in priority of the lien hereof.

7. To pay taxes and assessments.

SEC. 7. The Companies from time to time will pay and discharge all taxes, assessments and governmental charges lawfully imposed upon the premises hereby mortgaged, or upon any part thereof, or upon the income and profits thereof, the lien of which would be prior to the lien hereof, so that the priority of this indenture shall be fully preserved in respect of such properties; and if any company of whose capital stock the greater part now is pledged hereunder, or hereafter shall be acquired and pledged hereunder, shall, at any time during the continuance of any such pledge, fail to pay all such taxes,

assessments and charges lawfully imposed upon the property of such company or upon the income and profits thereof, then they, the Companies, will themselves pay and discharge the same: provided that the covenants of this Section shall not require the Companies to pay any tax, assessment or charge, so long as the validity thereof is in good faith contested.

8. To maintain and replace mortgaged premises.

SEC. 8. The Companies, from time to time and at all times during the continuance of this indenture, and until the payment of all bonds issued hereunder, severally and respectively will maintain the mortgaged premises and each and every part thereof, and will replace the same and all parts thereof lost, destroyed or used up, but the mining and selling of coal by the Coal Company, without replacement, shall not be construed as a violation of this covenant.

9. To retain unencumbered control of stock of other companies pledged hereunder.

SEC. 9. Except subject to the lien hereof or as herein otherwise expressly provided, the Companies (1) will not sell, encumber or by any voluntary act part with their respective ownership of and title to any shares of stock of any company above enumerated in I. and II. of Subdivision Fifth of the granting clauses hereof, or to any shares of stock of any company which shall hereafter be pledged hereunder (if a majority of the shares of such company shall have been, or shall be, so pledged), or the equity of redemption therein or the voting power thereof; and (2) severally and respectively will hold, subject to the lien hereof, all and singular such stock of every company of whose capital stock the greater part shall have been pledged hereunder, and will exercise the voting power thereon in such manner that they shall retain in themselves the rights and powers of the holder of the greater part of the capital stock of such company; and (3) will at all times take all such action as, from time to time, may be necessary to preserve the corporate existence and corporate rights of every company of whose capital stock the greater part shall be pledged hereunder.

As to stock of other companies pledged hereunder.

As such holder of stock of any Company (excepting the Coal Company) above mentioned under the headings I. and II. of Subdivision Fifth of the granting clauses hereof, or of stock of any other company of whose stock the greater part shall at such time be pledged hereunder, neither of the Companies will, by affirmative vote, or by abstaining from voting, sanction or permit any increase of the capital stock of any such company or the creation of any so-called "floating" indebtedness of any such company (except current operating accounts for a period not at any date exceeding six months prior thereto), or (except in respect of the Coal Company) the issue or guaranty of any bonds by any such company, or the creation of any mortgage or other lien upon the railroad or property of any such company (except bonds or mortgages or other liens in extension or replacement of those now existing), unless effective provision be made that all such additional stock (or such part of such additional stock as shall be proportionate to the part of such entire capital stock previously pledged hereunder), and (except as to the Coal Company) that any such indebtedness and the evidences thereof, and any such bonds issued or guaranteed, and any such mortgage or other lien, immediately upon the issue or creation thereof, shall be delivered to and pledged with the Trustee, by it to be held subject to all the trusts of this indenture, with the same effect as if such indebtedness, bonds, mortgage or other lien and shares, had been delivered and pledged to it hereunder at the time of the making hereof; and all such additional stock shall be fully paid and non-assessable. But nothing in this article or in any other article of this indenture is intended, or shall be construed, to require any such Company (not then being otherwise in default) to pay the principal of any bond heretofore created by any such Company or now secured by mortgage upon its property during any period for which the same shall have been extended or renewed as next here-

inafter provided; the right being hereby expressly reserved by each of the parties of the first and second part hereto, severally and respectively, in the discretion of their several Boards of Directors, from time to time, to take all necessary steps (1) to procure the extension of the time for the payment of the principal of any such existing bonds, or (2) in substitution for any such existing bonds to procure the issue of new bonds by any such Company, but not to increase the aggregate principal sum or the rate of interest now charged on such property by such existing liens, though the principal and interest of all such new or extended bonds may be made expressly payable in gold coin of the United States of the present standard of weight and fineness. As to stock of other companies pledged hereunder.

Except as herein otherwise expressly provided, neither of the Companies will, by affirmative vote, or by abstaining from voting, sanction or permit any railroad company of whose capital stock the greater part shall be pledged hereunder to sell or otherwise to dispose of its railroad, or to lease the same (unless such lease be terminable hereunder by entry of the Trustee, or by sale, by the Trustee, or pursuant to judicial proceedings), except to some company of whose capital stock there shall then be held or received by the Companies or by either of them, and shall be pledged or assigned to the Trustee hereunder, an amount not proportionately less than the amount then held hereunder of the capital stock of the Company whose railroad shall be so sold or shall be otherwise disposed of, or leased.

SEC. 10. Any and all claims and indebtedness (other than bonds now or hereafter pledged or assigned to the Trustee under some provision of this indenture) which the Companies, or either of them, now hold or hereafter may acquire against any other company of whose capital stock the greater part shall have been pledged hereunder, shall be and become subject to the lien of this indenture, and if and when requested in writing by the Trustee the Companies will execute to the Trustee appropriate assignments thereof. 10. To assign to Trustee claims against such other companies.

11. To issue or use bonds only as herein authorized.

SEC. 11. The Companies will not issue, negotiate, sell or dispose of any bonds hereby secured, in any manner other than in accordance with the provisions of this indenture, and the agreements in that behalf herein contained; and in issuing, selling, negotiating or otherwise disposing of such bonds, from time to time, they will well and truly apply, or cause to be applied, the same, or the proceeds thereof, to and for purposes herein prescribed, and to and for no other or different purpose.

12. Reading Company to declare dividends only after providing for a specified sinking fund equal to five cents per ton on coal mined.

SEC. 12. The Reading Company shall not, and will not, in any year declare or pay dividends upon its stock, either common or preferred, until or unless prior to, or simultaneously with, such declaration, it shall deliver to the Trustee a statement in writing under its corporate seal showing the amount of anthracite coal mined, from lands owned by the Coal Company and mortgaged hereunder, during the year next preceding the declaration of such dividend, and simultaneously shall pay to the Trustee hereunder a sum equal to five cents per ton on all coal so mined in such next preceding year, if the aggregate of dividends so declared shall be equal to or shall exceed such sum, and otherwise such lesser sum as shall be equal to the aggregate of dividends so declared.

All sums so received by the Trustee shall by it be used and applied in purchasing bonds hereby secured in such manner as to it shall seem best and at such prices as it shall deem best, but not exceeding par and accrued interest. To the extent that in the opinion of the Trustee bonds hereby secured cannot be bought on the terms herein prescribed, such bonds hereby secured may be purchased in the discretion of the Trustee and with the approval of the Reading Company at higher prices than those above fixed, or such unapplied balance shall be invested in securities in which Savings Banks at such time shall be authorized under the laws of New York to invest their funds, such securities to be held by the Trustee as a part of the trust estate hereunder; and the

Trustee is hereby authorized from time to time in its discretion and with the consent of the Reading Company to dispose of any such securities purchased by the Trustee, and to reinvest the proceeds of such sale in similar manner, or to apply the same to the purchase and cancellation as aforesaid of bonds hereby secured. Sinking fund from Coal.

All bonds hereby secured, when so purchased by the Trustee, shall be canceled.

ARTICLE THREE.

PROVISIONS CONCERNING PLEDGED BONDS AND STOCK.

Companies to receive interest, dividends, etc., unless in default.

SECTION 1. Unless (*a*) the Companies shall be in default in the payment of some interest on any bond secured by this indenture, or unless default shall be in the payment of some interest on any bond (other than bonds held by the Trustee hereunder, and except as provided in Section 6 of Article One), for the acquisition of which bonds secured hereby are reserved under Section 3 of Article One hereof, and such default shall have continued for a period of six months; or unless (*b*) the Companies shall be in default in the due and punctual payment of the principal of any bond secured hereby, or of any bond (other than bonds held by the Trustee hereunder, and except as provided in Section 6 of Article One), for the acquisition of which bonds secured hereby are reserved as aforesaid; or unless (*c*) the Companies shall be in default in the payment of any tax, assessment or other governmental charge lawfully imposed or levied upon any part of the property and premises hereby mortgaged, or the income and profits thereof, and such default shall have continued for a period of six months after written notice thereof from the Trustee or from holders of five per cent. in amount of the bonds secured hereby; or unless (*d*) the Companies shall be in default in the due performance and observance of

Companies to receive interest, dividends, etc., unless in default.

any covenant or condition of this indenture and such default shall have continued beyond the period of grace, if any, herein provided for in respect of such default, and the Trustee shall have entered or shall have elected to enter into possession under the power of entry hereinafter conferred; or unless (*e*) the Companies voluntarily shall have surrendered to the Trustee possession of the mortgaged premises as hereinafter authorized—the Trustee (except with the assent of the Companies) shall not collect or be entitled to collect the principal or interest of any bonds or other claims or indebtedness now or hereafter pledged with, or assigned to, the Trustee under this indenture; and (1) the Companies severally and respectively shall be entitled to receive all interest paid and dividends declared in respect of any bonds or stocks transferred to or pledged with the Trustee pursuant to any of the provisions of this indenture; and from time to time (subject to the covenants in respect thereof in this section contained), upon the request of the Companies, the Trustee shall deliver to them severally and respectively the coupons for such interest, in order that the Companies severally and respectively may receive payment thereof for their own use, and shall deliver to the Companies severally and respectively suitable orders in favor of the Companies severally and respectively or their respective nominee for the payment of such dividends and for the payment of such interest on registered bonds; and the Companies may collect such interest and dividends, but not by any proceeding which the Trustee shall deem to be prejudicial to the trusts hereunder; and the Trustee at once shall pay over to the Companies, severally and respectively, any such interest and dividends which may be collected or received by it; and (2) the Companies severally and respectively shall be entitled for their own use to demand, receive and collect, release and discharge, the principal or interest of any such claim against, or indebtedness (other than bonds) of, any other com-

pany pledged with the Trustee hereunder, and upon request of the Companies severally and respectively the Trustee shall execute any re-assignments or releases which may be required for that purpose.

Companies to receive interest, dividends, etc., unless in default.

If any such coupon, or if any evidence of any such claim or indebtedness, delivered to the Companies as aforesaid, shall not as aforesaid forthwith be paid and canceled, the Companies severally and respectively shall return the same to the Trustee and, in case of the payment of any such coupon, claim or indebtedness, shall upon demand of the Trustee furnish satisfactory evidence of the cancellation and extinguishment thereof.

Provided, however, and it is hereby declared and agreed that, except as herein otherwise expressly provided, (1) the Companies shall not be entitled to receive, and the Trustee shall not pay over to them, any principal of any bond pledged or assigned to the Trustee hereunder; (2) the Companies shall not be entitled to receive, and the Trustee shall not pay over, any interest on any such bond or any principal or interest of any such other claim or indebtedness which shall have been collected or paid out of the proceeds of any sale of any property covered by a mortgage securing such bonds, or out of the proceeds of the sale of any other property of the company liable upon such bonds, claims, or indebtedness, it being the intention that the Companies severally and respectively shall be entitled to receive only payments made out of the rents, revenues, income, or proceeds of operation of such properties; (3) the Companies shall not sell, assign or transfer any such coupon or right to dividend, delivered or assigned to it, or any other such claim or indebtedness, except subject to this indenture; (4) the Companies shall not collect any such coupons or other claims or indebtedness by legal proceedings or by enforcement of any security therefor, except with the assent of the Trustee, nor in any manner which the Trustee shall deem prejudicial to the trust hereunder; and (5) until actually paid or

discharged every such coupon or right to dividends and other claims and indebtedness shall in all respects remain subject to the lien of this indenture.

Principal of pledged bonds and shares when collected to be used for improvements, etc.

SEC. 2. In case any sum shall be paid to the Trustee on account of the principal of any bond pledged with the Trustee, hereunder, or in case, upon the dissolution or liquidation of any company, or out of any sale of the property of any company, any sum shall be paid to the Trustee upon any shares of stock of such company held by the Trustee hereunder, or upon any claims against or indebtedness of such company as mentioned in Section 1 of this Article, then, in every such case (unless applied as in Section 5 of this Article provided), such sum shall be received by the Trustee and shall be held, used and applied in the same manner as the proceeds of property released under Article Six hereof.

Companies unless in default to have and to exercise voting power of pledged stock.

SEC. 3. Unless (1) the Companies shall be in default, and such default being one mentioned under (*a*), (*b*) or (*c*) of Section 1 of this Article, shall have continued as therein provided, or being one mentioned under (*d*) in said Section, the Trustee shall have entered, or shall have elected to enter, into possession, or unless (2) the Companies voluntarily shall have surrendered possession of the mortgaged premises as hereinafter authorized, the Companies shall have the right to vote upon all shares of stock pledged hereunder, for all purposes not inconsistent with the provisions or purposes of this indenture, and with the same force and effect as though such pledge had not been made; and from time to time, upon their demand, the Trustee forthwith shall execute and deliver to them, or their nominees, suitable powers of attorney or proxies for such purposes; it being expressly understood that, notwithstanding any other provision of this indenture, and in addition to all other purposes not inconsistent with the provisions or purposes of this indenture, if desired by the Reading Company,

such proxies may and shall be given to enable it, or its nominees, to vote, and that accordingly it, or they, may vote, upon all shares of stock of the Coal Company pledged hereunder, (1) for the issue or guaranty of bonds by the Coal Company, or to enable the Coal Company to join with the Reading Company in the creation of mortgages or other liens, subordinate to the lien hereof, upon property of the Coal Company; or (2) to enable the Coal Company to borrow money, and to secure the repayment thereof, by a pledge or hypothecation of its coal when actually mined, or the representatives, or the proceeds, of coal actually mined; and it being further expressly understood that, notwithstanding any other provision of this indenture, and in addition to all other purposes not inconsistent with the provisions or purposes of this indenture, if desired by the Reading Company, such proxies may and shall be given to enable it, or its nominees, to vote, and that accordingly it, or they, may vote, upon all shares of stock of the Philadelphia and Reading Railway Company, (1) to enable said Railway Company to change, alter or renew any existing lease of railway or other property now operated by it, or (2) to make a new lease of all or any part of the railway or other property covered by any such existing lease, or to lease additional lines of railway or other property, unless in the opinion of the Trustee, such change, alteration or removal or such new lease or such lease of additional lines of railway or other property is clearly prejudicial to the trust; it being further expressly understood that notwithstanding any other covenant or provision of this indenture, and for the full accomplishment of the purposes of any vote or power given as in this section permitted, the Railway Company and the Coal Company severally and respectively, from time to time, may take any and all action authorized by any such vote or power.

Unless in default Companies to have and to exercise voting power of pledged stock.

SEC. 4. The Trustee shall be authorized to cause to be registered in its name as Trustee any and all coupon bonds

Trustee may register in its name and stamp bonds or shares pledged hereunder.

pledged with it hereunder, or which at any time hereafter may be pledged with it under any of the provisions of this indenture, or to cause the same to be exchanged for registered bonds of any denomination without coupons, or to cause the same to be stamped "Not negotiable. Held by Central Trust Company of New York, as Trustee, under the Mortgage of Reading Company and The Philadelphia and Reading Coal and Iron Company, dated January 5th, 1897." The Trustee shall cause to be transferred into its name as Trustee hereunder all registered bonds and all shares of stock delivered and assigned to it or which at any time hereafter may be delivered and assigned to it as security hereunder.

And may maintain corporate existence of companies whose shares are pledged hereunder.

The Trustee may do whatever may be necessary for the purpose of maintaining or preserving the corporate existence of any and all companies, any of whose shares shall, at any time, be pledged hereunder, and for such purposes, from time to time, it may sell, assign, transfer and deliver so many shares of the stocks of the several companies as may be necessary to qualify persons to act as Directors of, or in any other official relation to, said companies; provided, however, that under this provision no transfer shall be made which shall reduce the amount of stock in any company, held by the Trustee, so as to render it less than a controlling interest in such stock; and in all cases the Trustee may make such arrangements as it shall deem necessary for the protection of the trust hereunder.

Enforcement of pledged securities when in default.

SEC. 5. If any default shall be made in the payment of the principal or interest of any mortgage bonds at any time pledged hereunder, or of other bonds secured by the same mortgage as such bonds held by the Trustee, then, in any such case, the Trustee, upon the written request of the Companies, shall cause proper proceedings to be instituted and prosecuted in some court of competent jurisdiction to foreclose the mortgage or mortgages by which such bonds are secured; but in any case where not less than seventy-

five per cent. in amount of the principal of all the bonds secured by any mortgage are pledged hereunder, proceedings to foreclose such mortgage shall be taken only under such conditions as in the judgment of the Trustee will enable it either to obtain par and interest for the bonds secured by such mortgage held by it, or else to acquire the property covered by such mortgage, and to subject such property or securities representing such property to the lien hereof, as hereinafter provided. The Trustee, however, shall not be liable for any error of judgment in respect of such proceedings or their outcome.

In case the Companies shall be in default in the payment of the principal or interest of any of the bonds hereby secured, and such default shall have continued for a period of six months, or in case a Receiver of the mortgaged premises belonging to either of the Companies shall have been appointed, or in case the Trustee shall have entered, or shall have elected to enter, into possession of any such mortgaged premises under the power hereinafter conferred or by the voluntary action of either of the Companies, then the Trustee, in its discretion, may institute such proceedings without such written request.

Purchase of property by use of pledged securities.

In case, at any time, any company of whose capital stock the greater part shall be held by the Trustee hereunder shall be dissolved or liquidated, or in case all or any of the property of any such company shall be sold upon the insolvency of such company at any judicial or other sale, or in case any property covered by a mortgage securing any bonds held by the Trustee hereunder shall be sold to satisfy such mortgage, (1) then, in any such case, if the property of such company or the property sold can be acquired by crediting on the bonds, claims, indebtedness or stock held by the Trustee hereunder the amount accruing thereon out of the proceeds of such property, and paying not more than twenty-five per cent. of the price of such property in cash, the Trustee may, in its discretion, and (2) in any case, if by the Companies requested in writing, and

Purchase of property by use of pledged collaterals.

by them provided with the necessary funds therefor, the Trustee shall, purchase, or cause to be purchased, such property either in the name and on behalf of one or both of the Companies or in its own name or by purchasing trustees, and shall use such bonds, claims, indebtedness and stock to make payment for such property; and in case of any such purchase, the Trustee shall take such proceedings as it may deem best to cause such property to be vested either in the Reading Company or the Coal Company, subject to the lien of this indenture, or in some other corporation organized, or to be organized, for that purpose, of whose bonded debt and capital stock all, excepting the amount thereof required to qualify directors, shall be received and held by the Trustee, and shall be vested in the Reading Company or the Coal Company, subject to the lien of this indenture.

Power of Trustee to join in reorganization in respect of pledged securities.

Anything herein contained to the contrary notwithstanding, the Trustee may also in any case take such steps as, in its discretion, shall be calculated best to protect its interests hereunder in respect of any bonds or stock subject to the lien hereof, and for that purpose it may join in any plan of reorganization in respect of any such bonds or stocks and may accept new securities issued in exchange therefore under such plan.

Provision for cash required to protect collaterals.

The Companies covenant that, on demand of the Trustee, they forthwith will pay or satisfactorily provide for all expenditures incurred by the Trustee under any of the provisions of this Section, including all sums required to obtain and perfect the ownership and title to any properties which the Trustee shall purchase or cause to be purchased pursuant to the provisions of this Section; and, in case the Companies shall fail so to do, then, without impairment of or prejudice to any of its rights hereunder by reason of the default of the Companies, the Trustee, in its discretion, may advance all such expenses and other moneys required, or may procure such advances to be made by others, and for such advances, made by the Trustee, or by others at its request, with interest

thereon, the Trustee shall have a lien on the property hereby mortgaged and pledged, which lien shall be prior to the lien of the bonds hereby secured, but in no event shall the principal of such lien exceed, in the aggregate, at any one time, a sum equal to three per cent. of the principal of the total amount of bonds issued hereunder and then outstanding.

Disposition of cash proceeds of Collaterals.

In case the Trustee shall not purchase or cause to be purchased the property sold at any such sale, and shall not join in a plan of reorganization as aforesaid in respect of such bonds or stock, the Trustee shall receive any portion of the proceeds of the sale accruing on the securities by it held hereunder, and shall apply the same in the manner provided in Article Sixth hereof in respect of moneys arising from the sale of other property released from the lien hereof as therein provided.

Trustee to consent to extension or renewal of bonds pledged hereunder.

SEC. 6. The Trustee, at any time in its discretion, may, and, if requested in writing by the Companies, shall, consent to the extension or renewal of any of the said several bonds pledged with or assigned to, or which hereafter shall be pledged with or assigned to, the Trustee hereunder, and of the mortgages securing the same, and in case of the renewal of any of such bonds the Trustee may surrender the same to the company which issued them, or its successor, and in lieu thereof may receive renewal bonds bearing such interest and maturing at such time as the Trustee may deem reasonable; provided that such extended or renewal bonds shall be secured by a lien and charge upon the same property equal or superior to that of the bonds renewed or extended. The Trustee may receive the certificate of counsel of the Companies as conclusive evidence that such extended or renewed bonds are so secured. All bonds received in exchange for, or in renewal of, the said several bonds heretofore mentioned, pledged with or assigned to, or which hereafter may be pledged with or assigned to, the Trustee, shall, by the Trustee, be held subject to the lien and to all the terms and provisions of this indenture,

in the same manner and to the same extent as the bonds in exchange for which, or in renewal of which, they shall have been received.

Remedies of Trustee and Bondholders.

ARTICLE FOUR.

REMEDIES OF TRUSTEE AND BONDHOLDERS.

Subordination of lien of detached coupons.

SECTION 1. Neither any coupon belonging to any bond hereby secured, nor any claim for interest on any registered bond which in any way, on or after maturity, shall have been transferred or pledged, separate and apart from the bond to which it relates, shall, unless accompanied by such bond, be entitled, in case of a default hereunder, to any benefit of, or from, this indenture, except after the prior payment in full of the principal of all bonds issued hereunder, and of all coupons and interest obligations not so transferred or pledged.

Power of entry after default.

SEC. 2. In case (1) default shall be made in the payment of any interest on any bond at any time issued under and secured by this indenture, or on any bond (except bonds held by the Trustee hereunder, and except as provided in Section 6 of Article One) for the acquisition of which bonds secured hereby are reserved under Section 3 of Article One hereof, and any such default shall continue for a period of six months; or in case (2) default shall be made in the due and punctual payment of the principal of any bond secured hereby or of any bond (except bonds held by the Trustee hereunder, and except as provided in Section 6 of Article One) for the acquisition of which bonds secured hereby are reserved as aforesaid; or in case (3) default shall be made by the Reading Company or by the Coal Company in the payment of any tax, assessment or other governmental charge lawfully imposed or levied upon any part of the property and premises hereby mortgaged, belonging to such Company, or upon the income and profits thereof, and such default shall continue for a period of six months after written notice thereof from the Trustee

or from holders of five per cent. in amount of the bonds hereby secured; or in case (1) either of the Companies shall make default in the due observance and performance of any other covenant or condition herein contained, and any such default shall continue for a period of six months after written notice thereof from the Trustee or from the holders of five per cent. in amount of the bonds hereby secured; then, and in each and every such case of default (provided, however, in respect of any of the three cases so indicated, that such default shall have continued for six months as aforesaid), the Trustee personally, or by its agent or agents, attorney or attorneys, may enter into and upon all or any part of the property and premises, lands, rights, interests and franchises hereby conveyed, or intended so to be, and each and every part thereof, and may exclude the Companies, their agents and servants, wholly therefrom, and, having and holding the same, may use, operate, manage and control said premises, and conduct the business thereof, either personally or by its superintendents, managers, receivers, agents and servants or attorneys, to the best advantage of the holders of the bonds hereby secured in accordance with law and with any statute relating to said premises or any part thereof, or to the operation thereof; and, upon every such entry, the Trustee, at the expense of the trust estate, from time to time, by purchase, repairs or construction, may maintain and restore, and insure or keep insured, the property, buildings and structures erected or provided for use in connection with said premises, and whereof it shall become possessed, as aforesaid, in the same manner and to the same extent as is usual, and likewise, from time to time, at the expense of the trust estate, may make all necessary or proper repairs, renewals and replacements and useful alterations, additions, betterments and improvements thereto and thereon; and the Trustee in such case shall have the right to manage the mortgaged premises as aforesaid, and carry on the business, and exercise all rights and powers of the Companies, either in

Power of entry after default.

Power of entry after default.

their names, or in the name of either of them, or otherwise, as the Trustee shall deem best; and its shall be entitled to collect and receive all incomes, rents, issues and profit of the same and every part thereof, and also the income from stocks and bonds pledged hereunder, and after deducting the expenses of operating said premises, and of conducting the business thereof, and of all repairs, maintenance, renewals, replacements, alterations, additions, betterments and improvements, and all payments which may be made for taxes, assessments, insurance and prior or other proper charges upon the said premises and property, or any part thereof, including any interest paid on bonds prior in lien to those secured hereby, as well as just and reasonable compensation for its own services and for all agents, clerks, servants and other employees by it properly engaged and employed, it shall apply the moneys arising as aforesaid as follows:

Application of income by Trustee in possession.

In case the principal of the bonds hereby secured shall not have become due, to the payment of the interest remaining in default, in the order of the maturity of the installments of such interest, with interest thereon at the rate of four per cent. per annum; such payments to be made ratably to the persons or parties entitled thereto, without discrimination or preference;

In case the principal of the bonds hereby secured shall have become due by declaration or otherwise, first, to the payment of the accrued interest (with interest thereon at the rate of four per cent. per annum), in the order of the maturity of the installments thereof, and next, to the payment of the principal of all bonds hereby secured; in every instance such payments to be made ratably to the person or persons entitled to such payment, without any discrimination or preference;

These provisions, however, not being intended in anywise to modify the provisions of Section 1 of this Article.

In case, and during such continuance, of any such default in either of the first three cases specified in this section, either with or without entry by the Trustee, and also in the fourth case, if the Trustee shall have entered or shall have elected to enter as aforesaid, the Trustee shall have, exercise, and enjoy the right to vote on all shares of stock pledged or agreed to be pledged hereunder, and, for the benefit of the holders of bonds hereby secured, the right to receive and collect all interest moneys and dividends maturing or payable upon all pledged bonds and stocks, and to apply as hereinbefore provided the net moneys received, and as holder of such shares of stock and of such bonds pledged or agreed to be pledged in this indenture, to perform any and all acts, and to make or execute any and all requests, requisitions or other instruments. In the event that a Receiver of the mortgaged premises shall have been appointed and shall be in possession thereof, the Trustee, from time to time, in its discretion, may turn over any part or all of the interest moneys and dividends so collected by it, to such Receiver, and may co-operate with such Receiver in managing and operating the entire properties mortgaged or pledged hereunder in such manner as the Trustee shall deem for the best interest of the holders of the bonds hereby secured.

After default Trustee in possession may collect interest and dividends; and may vote on stock.

SEC. 3. In case default shall be made by the Companies in the payment of any interest on any bond hereby secured, and such default shall continue for a period of six months, then and in every case of such continuing default, upon the written request of the holders of a majority in amount of the bonds hereby secured then outstanding, the Trustee, by notice in writing delivered to the Companies, shall declare the principal of all bonds hereby secured then outstanding to be due and payable immediately, and upon any such declaration the same shall become and be immediately due and payable, anything in this indenture or in said bonds contained to the contrary

Upon specified default Trustee may declare principal due.

Power to declare principal due and to revoke declaration.

thereof in anywise notwithstanding. This provision is, however, subject to the condition, that if at any time after the principal of said bonds shall have been so declared due and payable, all arrears of interest upon all such bonds, with interest at the rate of four per cent. per annum on overdue installments of interest, shall either be paid by the Companies or be collected out of the mortgaged premises before any sale of the mortgaged premises shall have been made, then and in every such case the holders of a majority in amount of the bonds hereby secured then outstanding, by written notice to the Companies and to the Trustee, may waive such default and its consequences; but no such waiver shall extend to or affect any subsequent default, or impair any right consequent thereon.

In case the Trustee shall have proceeded to enforce any right under this indenture by foreclosure, entry or otherwise, and such proceedings shall have been discontinued or abandoned because of such waiver, or for any other lawful reason, or shall have been determined adversely to the Trustee, then and in every such case, the Companies shall be restored to their former position and rights hereunder in respect of the mortgaged premises and the shares of stock and bonds, and other property, herein pledged or agreed to be pledged; and, upon their written request, the Trustee shall do, make, execute, acknowledge and deliver such acts, deeds, instruments and assurances in the law as may be required to effectuate such purpose; but, nevertheless, all rights, remedies and powers of the Trustee shall survive and continue as though no such proceedings had been taken.

Power to sell or to foreclose by judicial proceedings.

SEC. 4. In case (1) default shall be made by the Companies in the payment of any interest on any bond secured by this indenture, or on any bond (other than bonds held by the Trustee hereunder, and except as provided in Section 6 of Article One), for the acquisition of which bonds

hereby secured are reserved as aforesaid, and any such default shall continue for a period of six months; or in case (2) default shall be made by the Companies in the due and punctual payment of the principal of any bond secured hereby, or of any bond (other than bonds held by the Trustee hereunder, and except as provided in Section 6 of Article One), for the acquisition of which bonds hereby secured are reserved as aforesaid; or in case (3) default shall be made by either of the Companies in the payment of any tax, assessment or other governmental charge lawfully imposed or levied upon any part of the mortaged property or premises belonging to such Company or upon the income and profits thereof, and such default shall continue for a period of six months after written notice thereof from the Trustee or from holders of five per cent. in amount of the bonds hereby secured; or in case (4) either of the Companies shall make default in the due observance and performance of any other covenant or condition herein contained, and any such default shall continue for a period of six months after written notice thereof from the Trustee or from the holders of five per cent. in amount of the bonds hereby secured and then outstanding; then, and in each and every such case of default (provided, however, in respect of any of the three cases so indicated, that such default shall have continued for six months as aforesaid), the Trustee, with or without entry, personally or by attorney, in its discretion (*a*) may sell to the highest and best bidder, all and singular the mortgaged property and premises, bonds and stocks, rights, franchises and interests, lands and appurtenances, and other real and personal property of every kind, and all right, title and interest, claim and demand therein, and right of redemption thereof, in two separate lots, of which the first lot, to be sold as an entirety, shall be all the property herein granted by, or in behalf of, the Reading Company; and the second lot, to be sold separately as an entirety, shall be all the property herein granted by, or in behalf of, the Coal

Power to sell or to foreclose by judicial proceedings.

in discretion of Trustee.

Power to sell or to foreclose by judicial proceedings.

Company; provided, however, in respect of each lot that if a sale thereof in parcels shall be required under the provisions of Section 6 of this Article, such sale may be made in parcels as in said Section provided; which sale or sales shall be made at public auction at such place in the City of Philadelphia, in the State of Pennsylvania, or at such other place, and at such time and upon such terms, as the Trustee may fix and briefly specify in the notice of sale to be given as herein provided; or (*b*) immediately upon the expiration of the six months in the three cases so indicated, and immediately upon default in payment of principal in the other case, may proceed to protect and enforce the rights of bondholders under this indenture, by a suit or suits in equity or at law, whether for the specific performance of any covenant or agreement contained herein, or in aid of the execution of any power herein granted, or for the foreclosure of this indenture, or for the enforcement of any other appropriate legal or equitable remedy, as the Trustee, being advised by counsel learned in the law, shall deem most effectual to protect and to enforce any of its rights or duties hereunder.

upon request of holders 25% of bond.

Upon the written request of the holders of twenty-five per cent. in amount of the bonds hereby secured, in case of any such continuing default, it shall be the duty of the Trustee, upon being indemnified as hereinafter provided, to take all needful steps for the protection and enforcement of its rights and the rights of the bondholders secured hereby, and to exercise the powers of entry and sale herein conferred, or both, or to take appropriate judicial proceedings by action, suit or otherwise, as the Trustee, being advised by counsel learned in the law, shall deem most expedient in the interest of the holders of the bonds hereby secured.

SEC. 5. Anything in this indenture contained to the contrary notwithstanding, the holders of seventy-five per cent. in amount of the bonds hereby secured and then outstanding, in case of any subsisting default, from time to time, shall have the right

to direct and control the method and place of conducting any and all proceedings for any sale of the premises hereby conveyed and pledged, or agreed or intended so to be, or for the foreclosure of this indenture, or for the appointment of a Receiver, or of any other proceedings hereunder.

Holders of 75% of bonds may direct proceedings of Trustee.

SEC. 6. In the event of any sale, whether made under the power of sale hereby granted and conferred, or under or by virtue of judicial proceedings, or of some judgment or decree of foreclosure and sale, the whole of the property hereby mortgaged and pledged shall be sold as provided in Section 4 of this Article in two separate lots, and in case of each of such lots as an entirety, including all the rights, title, estates, lands, rights to lands, railroads, equipment, franchises, leases, leasehold interests, contracts, stocks, bonds and other real and personal property of every name and nature, unless the holders of a majority in amount of the bonds hereby secured then outstanding shall, in writing, request the Trustee to cause one or both of said two lots to be sold in parcels, in which case the sale thereof shall be made in such parcels as may be specified in such request or petition, or unless such sale as an entirety is impracticable by reason of some statute or other cause; and this provision shall bind the parties hereto and each and every of the holders of the bonds and coupons hereby secured or intended so to be.

Property to be sold in two separate lots, each as an entirety, unless otherwise directed or necessary.

SEC. 7. Notice of any such sale pursuant to any provision of this indenture shall state the time and place when and where the same is to be made, and shall contain a brief general description of the property to be sold, and shall be sufficiently given if published once in each week for four successive weeks prior to such sale in a newspaper published in New York, N. Y.; and in a newspaper published in Philadelphia, Pennsylvania.

Notice of sale required.

SEC. 8. Upon the completion of any sale or sales under this indenture, the Trustee shall make, execute and deliver to the accepted purchaser or purchasers a good and sufficient deed,

Trustee to deliver conveyance.

Conveyance to purchasers of mortgaged premises.

or good and sufficient deeds, of conveyance, of the property and franchises sold. And the Trustee and its successors are hereby appointed the true and lawful attorney or attorneys, irrevocable, of the Companies, and of each of them, in their, and each of their, name and stead to make all necessary deeds and conveyances of property and all necessary transfers of shares of stock or bonds or other obligations thus sold, and for that purpose it and they may execute all necessary acts of assignment and transfer, and may substitute one or more persons with like power, the Companies hereby ratifying and confirming all that their said attorney or attorneys, or such substitute or substitutes, shall lawfully do by virtue hereof.

Sale hereunder a bar

Any such sale or sales made under or by virtue of this indenture, whether under the power of sale hereby granted and conferred, or under or by virtue of judicial proceedings, shall operate to divest all rights, title, interest, claim and demand whatsoever, either at law or in equity, of the Companies of, in and to the premises sold, and shall be a perpetual bar both at law and in equity against the Companies, and each of them, their, and each of their, successors and assigns, and against any and all persons claiming or to claim the premises sold, or any part or parcel thereof, by, from, through or under the Companies, their and each of their successors and assigns, or any of them.

All chattels hereunder to be considered real estate.

The personal property and chattels conveyed, or intended to be conveyed by or pursuant to this indenture, other than stocks, bonds and other securities, and property pledged or to be pledged with the Trustee, shall be real estate for all the purposes of this indenture, and shall be held and taken to be fixtures and appurtenances of the said two parcels severally and respectively, and part thereof, and are to be used and sold therewith and not separate therefrom, except as herein otherwise provided.

SEC. 9. The Trustee, from time to time, may adjourn any sale to be made by it under the provisions of this indenture,

by announcement at the time and place appointed for such sale, or for such adjourned sale or sales; and without further notice or publication, it may make such sale at the time and place to which the same shall be so adjourned. Trustee may adjourn sale.

SEC. 10. The receipt of the Trustee shall be a sufficient discharge to the purchaser or purchasers of the property sold as aforesaid, for the purchase money, and no such purchaser or purchasers, or his, their or its representatives, vendees, grantees or assigns, after paying such purchase money and receiving such receipt, shall be bound to see to the application of such purchase money, upon or for any trust or purpose of this indenture, or in any manner whatsoever be answerable for any loss, misapplication, or non-application, of any such purchase money, or any part thereof, or be bound to inquire as to the authorization, necessity, expediency or regularity of any such sale. Receipt of Trustee to discharge purchaser.

SEC. 11. In case of any such sale, whether under the power of sale hereby granted, or pursuant to judicial proceedings, the whole of the principal sum of the bonds hereby secured, if not previously declared due, shall at once become due and payable, anything in said bonds or in this indenture to the contrary notwithstanding. Upon sale principal of bonds to become due.

SEC. 12. The proceeds or avails of any such sale, whether under the power of sale hereby granted or pursuant to judicial proceedings, and the purchase money paid thereon, together with any sums which may be held by the Trustee under any of the provisions of this indenture, at the time of, or after, such sale, as part of the trust estate or the proceeds thereof, shall be applied as follows: Distribution of proceeds of sale.

First. To the payment of the costs and expenses of such sale, including a reasonable compensation to the

Distribution of proceeds of sale.

Trustee, its agents, attorneys and counsel, and of all expenses, liabilities and advances made and incurred by the Trustee in managing and maintaining the property hereby conveyed or so intended to be, and of all taxes, assessments or liens prior to the lien of these presents, except any taxes, assessments or other superior liens to which such sales shall have been made subject.

Second. To the payment of the whole amount then owing or unpaid upon the bonds hereby secured for principal and interest, with interest at the rate of four per cent. per annum on the overdue installments of interest, and in case such proceeds shall be insufficient to pay in full the whole amount so due and unpaid upon the said bonds, then to the payment of such principal and interest, without preference or priority of principal over interest, or of interest over principal, or of any installment of interest over any other installment of interest, ratably, to the aggregate of such principal and the accrued and unpaid interest; subject, however, to the provisions of Section 1 of this Article.

Third. To the payment of the surplus, if any, to the Reading Company and to the Coal Company severally and respectively, or to whomsoever may be lawfully entitled to receive the same.

Companies covenant to pay Trustee amount of Mortgage Debt.

SEC. 13. The Companies covenant that in case (1) default shall be made in the payment of any interest on any bonds at any time outstanding and secured by this indenture, or in case (2) default shall be made in the payment of the principal of any such bonds when the same shall become payable, whether at the maturity of said bonds or by declaration as authorized by this indenture, or by a sale of the mortgaged premises as hereinbefore provided, then, upon demand of the Trustee, they will pay to the Trustee the whole amount of the interest, or of the interest and principal, due and

payable on all the bonds hereby secured then outstanding, with interest at the rate of four per cent. per annum upon the overdue principal and installments of interest; and in case they shall fail to pay the same, forthwith, upon such demand, the Trustee, in its own name and as trustee of an express trust, shall be entitled to recover judgment for the whole amount so due and unpaid.

Companies covenant to pay Trustee amount of Mortgage Debt.

The Trustee shall be entitled to recover judgment as aforesaid, either before, or after, or during the pendency of, any proceedings for the enforcement of the lien of this indenture upon the mortgaged and pledged premises, and the right of the Trustee to recover such judgment shall not be affected by any entry or sale hereunder, or by the exercise of any other right, power or remedy for the enforcement of the provisions of this indenture or the foreclosure of the lien thereof; and in case of a sale of the mortgaged premises and of the application of the proceeds of sale to the payment of the mortgaged debt, the Trustee, in its own name and as Trustee of an express trust, shall be entitled to enforce payment of, and to receive, all amounts then remaining due and unpaid upon any and all of the bonds issued hereunder and then outstanding, for the benefit of the holders thereof, and shall be entitled to recover judgment for any portion of the mortgage debt remaining unpaid, with interest. No recovery of any such judgment by the Trustee and no levy of any execution upon any such judgment upon property subject to the lien of this indenture, or upon any other property, shall, in any manner, or to any extent, affect the lien of the Trustee upon the mortgaged premises or any part thereof, or any rights, powers or remedies of the Trustee hereunder, or any rights, powers or remedies of the holders of the bonds hereby secured, but such lien, rights, powers and remedies shall continue unimpaired as before.

Trustee entitled to recover deficiency judgment.

Any moneys collected by the Trustee under this Section shall by it be distributed and paid over to the persons regis-

Trustee's distribution of sums collected under deficiency judgment.

tered as holders of the registered bonds at the time of payment, and the persons presenting the coupon bonds and coupons for such payment, without any preference or priority of any kind, and ratably according to the amounts which shall have become due upon such bonds and coupons respectively.

Waiver of extension, appraisement and redemption laws.

SEC. 14. The Companies will not, nor will either of them, at any time insist upon or plead, or in any manner whatever claim, or take the benefit or advantage of, any stay or extension law now or at any time hereafter in force in any locality where the mortgaged premises or pledged property, or any part of either, may or shall be situate, nor will they claim, take or insist on any benefit or advantage from any law now or hereafter in force, providing for the valuation, or appraisement, of the mortgaged premises, or pledged property, or any part thereof, prior to any sale or sales thereof to be made pursuant to any provision herein contained, or to the decree of any court of competent jurisdiction; nor after any such sale or sales will they claim or exercise any right under any statute enacted by the Congress of the United States, or by the Legislature of any State, to redeem the property so sold, or any part thereof; and they hereby expressly waive all benefit and advantage of any such law or laws; and they covenant that they will not hinder, delay or impede the execution of any power herein granted and delegated to the Trustee, but that they will suffer and permit the execution of every such power, as though no such law or laws had been made or enacted.

Right to appointment of Receiver.

SEC. 15. Upon filing a bill in equity, or upon commencement of any other judicial proceedings to enforce any right of the Trustee or of the bondholders under this indenture, the Trustee shall be entitled to exercise the right of entry herein conferred, and also any and all other rights and powers herein and hereby conferred and provided to be exercised by the Trustee upon

Right to appointment of Receiver.

the occurrence and continuance of default as hereinbefore provided; and, in any case of any default entitling the Trustee to enter as provided in Section 2 of Article Four hereof, the Trustee, as matter of right, shall be entitled to the appointment of a Receiver of the premises hereby mortgaged, and of the earnings, income, revenue, rents, issues or profits thereof, with such powers as the Court making such appointment shall confer; but notwithstanding the appointment of any Receiver, the Trustee shall be entitled, as pledgee, to continue to retain possession and control of the stocks, bonds, cash and other property pledged or to be pledged with the Trustee hereunder.

Voluntary surrender of possession to Trustee.

SEC. 16. Each of the Companies at any time hereafter, before full payment of the bonds secured hereby, and whenever deemed expedient for the better security of such bonds, although there be then no default entitling the Trustee to enter into possession, may, with the consent of the Trustee, surrender and deliver to the Trustee full possession of the whole or any part of the property, premises and interest by it hereby conveyed, or intended so to be, for any period, fixed or indefinite. Upon such surrender and delivery to the Trustee, with its consent, the Trustee shall enter into and upon the premises so surrendered and delivered, and shall take and receive possession thereof, for such period, fixed or indefinite, as aforesaid, without prejudice, however, to its right at any time subsequently, when entitled thereto by any provision hereof, to insist upon and to maintain such possession, though beyond the expiration of any prescribed period. Upon any such voluntary surrender and delivery of said property and premises, or of any part thereof, the Trustee, from the time of its entry, shall work, maintain, use, manage, control and employ the same in accordance with the provisions of this Indenture, and shall receive and apply the income and revenues thereof as provided in Section 2 of

Appointment of Receiver by consent.

this Article. Upon application of the Trustee, and with consent of the Companies if there be then no subsisting default hereunder, and without such consent if there shall then be a subsisting default entitling the Trustee to enter as provided in Section 2 of this Article hereof, a Receiver may be appointed to take possession of, and to operate, maintain and manage the whole or any part of said property wheresoever the same may be situated, with all the rights, powers and duties by this Section conferred upon the Trustee, and the Companies shall transfer and deliver to such Receiver all such property in its possession wheresoever the same may be situated; provided, however, that notwithstanding the appointment of any such Receiver the Trustee, as pledgee, shall be entitled to retain possession and control of the stocks, bonds, cash and other property pledged with the Trustee hereunder.

No suit by bondholders.

SEC. 17. No holder of any bond or coupon hereby secured shall have any right to institute any suit, action or proceeding in equity or at law for the foreclosure of this indenture or for the execution of any trust thereof, or for the appointment of a Receiver, or for any other remedy hereunder, unless such holder shall previously have given to the Trustee written notice of such default, and of the continuance thereof as hereinbefore provided, nor unless, also, the holders of twenty-five per cent. in amount of the bonds hereby secured and then outstanding shall have made written request of the Trustee, and shall have afforded to it reasonable opportunity, either itself to proceed to exercise the powers hereinbefore granted, or to institute such action, suit or proceeding in its own name, nor unless, also, they shall have offered to the Trustee adequate security and indemnity against the cost, expenses and liabilities to be incurred therein or thereby; and such notification, request and offer of indemnity are hereby declared in every such case, at the option of the Trustee, to be conditions precedent to the execution of the

powers and trusts of this indenture and to any action, or cause of action, for foreclosure or for the appointment of a Receiver, or for any other remedy hereunder; it being understood and intended that no one or more holders of bonds and coupons shall have any right in any manner whatever to affect, disturb or prejudice the lien of this indenture by his or their action, or to enforce any right hereunder, except in the manner herein provided, and that all proceedings at law or in equity shall be instituted, had and maintained in the manner herein provided and for the equal benefit of all holders of such outstanding bonds and coupons. No suit by bondholders.

SEC. 18. Except as herein expressly provided to the contrary, no remedy herein conferred upon or reserved to the Trustee, or upon or to the holders of bonds hereby secured, is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative, and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute. Remedies hereunder cumulative.

SEC. 19. In case of any sale hereunder, any and all purchasers in making settlement or payment, shall be entitled to turn in any bonds and any matured and unpaid interest obligations hereby secured, estimating the value of such bonds and coupons for that purpose at the sum payable out of the net proceeds of such sale to the holder or holders of such bonds and coupons as his or their ratable share of such net proceeds, after allowing for the proportion of the total payment required to be made in cash for the cost and expenses of the sale or otherwise; and if such share of net proceeds shall be less than the amount then due upon such bonds and coupons, such purchaser or purchasers may make such settlement by receipting on the bonds the amount to be credited thereupon; and at any such sale any bondholders may bid for and purchase such property, and, upon compliance with the terms of sale, may hold, retain, and Right of purchaser to pay by credit on bonds.

dispose of, such property without further accountability therefor.

Trustee's delay not to operate as waiver.

SEC. 20. No delay or omission of the Trustee, or of any holder of bonds hereby secured, to exercise any right or power arising from any default continuing as aforesaid shall impair any such right or power, or shall be construed to be a waiver of any such default, or an acquiescence therein.

Holders of $\frac{4}{5}$ of bonds may direct Trustee to join in reorganization giving priority over bonds hereby secured.

SEC. 21. In case of any default hereunder, if, in order to preserve the franchises of the Companies, or either of them, and to avoid a sale hereunder, any plan of reorganization shall be proposed with provisions for the modification of this mortgage, so far as to authorize and require the creation of new liens upon the mortgaged premises prior and superior to the lien hereof, then and in every such case registered holders of four-fifths in amount of all outstanding bonds hereby secured, by writing, may direct the Trustee, in behalf of all the holders of all bonds then or thereafter issued hereunder, to acquiesce in the provisions of such plan: which plan also may determine and provide for the interest of other creditors and lienors and of the shareholders of the Companies, or either of them. This special power, however, is granted to the registered holders of four-fifths in amount of the bonds upon the express condition that no bond hereby secured and then outstanding shall be changed as to amount or date of payment of principal or rate or dates of payment of interest. Thereupon but not otherwise, the Trustee shall by writing acquiesce in such provisions of such plan, and such acquiescence by the Trustee shall constitute the irrevocable assent of all holders of bonds and coupons hereby secured to any such accepted modifications, as set forth in such plan and necessary to give effect to such provisions thereof. All such modifications so affecting this indenture and the bonds and coupons hereby secured

shall be reduced to a written agreement between the Companies and the Trustee, and such agreement shall be recorded in New York County, New York, and Dauphin County, Pennsylvania; and thenceforth shall be deemed to be part of this indenture, and thereafter the lien of this indenture, and of the bonds hereby secured, shall be deemed to be and shall be subordinate to such new and prior liens created pursuant to such plan, but only to the extent specified in such written agreement.

Registration for any purpose of this section shall be sufficient if then or theretofore made and then continuing in any manner permitted by Section 4 of Article Two of this indenture.

ARTICLE FIVE.

AUTHENTICATION OF INSTRUMENTS EXECUTED BY BONDHOLDERS.

Any request or other instrument required by this indenture to be signed and executed by bondholders may be in any number of concurrent instruments of similar tenor, and may be signed or executed by such bondholders in person or by agent appointed in writing. Proof of the execution of any such request or other instrument, or of a writing appointing any such agent, and of the holding by any person of coupon bonds transferable by delivery, shall be sufficient for any purpose of this indenture, if made in the following manner:

The fact and date of the execution by any person of any such request, or other instrument, or writing, may be proved by the certificate of any notary public, or other officer authorized to take acknowledgments of deeds to be recorded in New York, that the person signing such request or other instrument acknowledged to him the execution thereof, or by an affidavit of a witness of such execution.

The amount of coupon bonds transferable by delivery, held by any person executing any such request or other instrument

Authentication of bondholders' acts.

as the holder of bonds, and the issue numbers of the bonds held by such person, and the date of his holding the same, may be proved by a certificate executed by any trust company, bank, bankers or other depositary (wherever situated), whose certificate shall be deemed by the Trustee to be satisfactory, showing that such person had on deposit with such depositary the bonds described in such certificate at the date therein mentioned. The ownership of registered coupon bonds or of registered bonds without coupons shall be proved by the registers of such bonds as provided in Section 4 of Article Two hereof.

Such proof shall be conclusive in favor of the Trustee with regard to any action taken by it under such request or other instrument.

ARTICLE SIX.

RELEASE OF PROPERTY MORTGAGED.

Release by Trustee of property upon request of Companies.

Upon the written request of the Companies, approved by resolution of their respective Boards of Directors or Executive Committees, from time to time while the Companies are in possession of the mortgaged premises, but subject to the conditions and limitations in this Section prescribed, and not otherwise, the Trustee, in its discretion, may release from the lien and operation of this indenture any part of the mortgaged and pledged premises, excepting (1) the bonds (other than bonds of the Schuylkill Navigation Company) mentioned in Subdivision Fourth of the granting clauses of this indenture, (2) the shares of stock mentioned under I. and II. of Subdivision Fifth of said granting clauses, and (3) any bonds and shares hereafter pledged hereunder. It is expressly agreed by the parties hereto that the bonds of the Schuylkill Navigation Company pledged hereunder may be so released.

No release hereunder shall be made unless the Companies

shall have sold, or shall have contracted to sell or to exchange for other property, the property so to be released. The proceeds of any and all such sales, and also all moneys received as compensation for any property subject to this indenture taken by exercise of the power of eminent domain, may be disposed of as required by any mortgage securing any of said outstanding old bonds, and the Trustee may acquiesce in such disposition. So far as such proceeds and moneys shall not be disposed of pursuant to any such requirement, they shall be set apart and applied, either (1) to the purchase of bonds hereby secured in the same manner as is provided in Section 12 of Article Two hereof; or (2), with the approval of the Trustee, to the purchase of other property, real or personal, which shall be conveyed in trust by the Companies to the Trustee, subject to all the trusts hereby declared. Any new property acquired by the Companies to take the place of any property released hereunder, *ipso facto*, shall become and be subject to the lien of this indenture, as fully as if hereby specifically mortgaged, but, if requested by the Trustee, the Companies severally and respectively will convey the same to the Trustee by appropriate deeds upon the trusts and for the purposes of this indenture.

Release of property by Trustee upon request of Companies.

Application of proceeds of released property.

If, however, in any one calendar year, the Trustee shall be called upon to release property of the Coal Company and the aggregate consideration paid or to be paid for all such property shall exceed $50,000, before executing releases in excess of said total amount of $50,000 in such year, the Trustee shall employ, at the expense of the Companies, some person by the Trustee deemed fully competent to pass upon such matters, and shall require from him his written opinion, verified before a notary public, (1) whether the property for which the release is asked is no longer desirable for the purpose of maintaining, operating and developing the coal business of the Coal Company, either at the present or in the future; and (2) whether without such property said coal

Conditions for release of more then $50,000 in any calendar year.

Release by Trustee of property upon request of Companies.

business, both present and future, can be maintained, operated and developed with substantially equal efficiency and economy; and, unless upon both of said points (1) and (2) such written opinion shall in the judgment of the Trustee clearly justify such release of such property, it shall decline to release the same.

The Companies, each for itself, covenant and agree that when applying for release of property hereunder they will in all cases state in writing to the Trustee the full consideration paid or to be paid by the purchasers, if such full consideration be not truly recited in the deed of release.

The Companies, severally and respectively, from time to time, while in possession of the mortgaged premises, shall also have full power, in their discretion, to dispose of any portion of the machinery, equipments and implements, at any time held or acquired, which may have become unfit for such use, replacing the same by new machinery, equipments or implements, which, immediately upon such acquisition, shall become subject to the operation of this indenture.

In no event shall any purchaser or purchasers of any property sold or disposed of under any provision of this Article of this indenture be required to see to the application of the purchase money.

In case any portion of the mortgaged or pledged premises shall be in the possession of a Receiver lawfully appointed, the powers in and by this Section conferred upon the Companies may be exercised by such Receiver with the approval of the Trustee; and if the Trustee shall be in possession of the mortgaged or pledged premises under any provision of this indenture, then all the powers by this Section conferred upon the Companies may be exercised by the Trustee in its discretion.

ARTICLE SEVEN.

PROVISIONS CONCERNING TRUSTEE.

Provision for protection of Trustee.

SECTION 1. The Trustee shall not be answerable for the default or misconduct of any agent or attorney appointed by it in pursuance hereof, if such agent or attorney shall have been selected with reasonable care; or for anything whatever, in connection with this trust, except willful misconduct or gross negligence. The Trustee shall not be personally liable for any debts contracted by it or for damages to persons or property carried or injured, or for salaries or non-fulfillment of contracts, during any period wherein the Trustee shall manage the trust property or premises upon entry or voluntary surrender as aforesaid. The Trustee shall not be under any obligation to take any action towards the execution or enforcement of the trust hereby created, which, in its opinion, shall be likely to involve it in expense or liability, unless one or more of the holders of the bonds hereby secured shall, as often as required by the Trustee, furnish it reasonable indemnity against such expense or liability; nor shall the Trustee be required to take notice of any default hereunder unless notified in writing of such default by the holders of at least five per cent. of the bonds hereby secured then outstanding, or to take any action in respect of any default unless requested in writing to take action in respect thereof by the holders of not less than twenty-five per cent. of the bonds hereby secured then outstanding, and tendered reasonable indemnity as aforesaid, anything herein contained to the contrary notwithstanding; but neither any such notice or request, not this provision therefor, shall affect any discretion herein given to the Trustee to determine whether or not it shall take action in respect of such default, or to take action without such request. The Trustee shall not be responsible for the recording of this indenture, or for the filing of the same as a chattel mortgage, or as a mortgage upon boats or other marine equipment.

The Trustee shall be entitled to reasonable compensation

for all services rendered by it in the execution of the trusts hereby created.

Resignation Removal of Trustee.

SEC. 2. The Trustee, or any Trustee hereafter appointed, may resign and be discharged of the trusts created by this indenture by giving notice thereof to the Companies and to the bondholders, by publication, at least twice a week, for four successive weeks, in one newspaper at that time published in New York, N. Y.; and in one newspaper published in Philadelphia, Pennsylvania, and by due execution of the conveyances hereinafter required.

The Trustee may be removed at any time by an instrument in writing under the hands of three-quarters in amount of the holders of the bonds secured hereby and then outstanding.

Appointment of successor Trustee.

SEC. 3. In case at any time the said Trustee, or any trustee hereafter appointed, shall resign or be removed or otherwise become incapable of acting, a successor, or successors, may be appointed by the holders of a majority in amount of the bonds hereby secured and then outstanding, by an instrument or concurrent instruments signed by such bondholders or their attorneys in fact duly authorized; provided, nevertheless, and it is hereby agreed and declared that, in case at any time there shall be a vacancy in the office of trustee hereunder, the Companies, by an instrument executed by order of their respective boards of directors, may appoint a trustee to fill such vacancy until a new trustee shall be appointed by the bondholders or as here authorized. The Companies shall thereupon publish notice of such appointment once a week for six successive weeks in a newspaper published in New York, N. Y.; and in a newspaper published in Philadelphia, Pennsylvania; and any new trustee so appointed by the Companies shall immediately and without further act be superseded by a trustee appointed in the manner above provided by the bondholders prior to the expiration of ninety days after such publication of notice. In case no such appointment shall be made by the

bondholders prior to the expiration of such ninety days, a new trustee, to supersede the trustee appointed by the Companies, may nevertheless be appointed by any judge of the United States Circuit Court for the Third Circuit or by any court of competent jurisdiction in the premises upon the application of one-quarter in amount of the bondholders. Every such trustee appointed in place of Central Trust Company of New York, or its successor in the trust, shall always be a trust company in good standing, doing business in the City of New York, and having a capital and surplus aggregating at least $2,000,000, if there be such a trust company willing and able to accept the trust upon reasonable or customary terms. Appointment of Successor Trustee.

Any new trustee appointed hereunder shall execute, acknowledge and deliver to the trustee last in office and also to the Companies an instrument accepting such appointment hereunder, and thereupon such new trustee shall become vested with all the estates, properties, rights, powers and trusts of its or his predecessor in the trust hereunder with like effect as if originally named as trustee herein without any further act, deed or conveyance; but the trustee ceasing to act shall, nevertheless, on the written request of the new trustee, execute and deliver an instrument transferring to such new trustee, upon the trusts herein expressed, all the estates, properties, rights, powers and trusts of the trustee so resigning or removed, and shall duly assign, transfer and deliver any stocks, bonds or other property and moneys held by such trustee to the new trustee so appointed in its or his place.

Should any deed, conveyance or instrument in writing from the Companies be required by any new trustee, for more fully and certainly vesting in and confirming to such new trustee such estates, rights, powers and trusts, any and all such deeds, conveyances and instruments in writing shall, on request, be made, executed, acknowledged and delivered by the Companies.

Article Eight.

No Recourse.

Bondholders to have no recourse against Stockholders etc.

No recourse under any obligation, covenant or agreement of this indenture, or of any bond or coupon hereby secured, shall be had against any incorporator, stockholder, officer or director of the Companies, or either of them, or of any successor corporation, either directly or through the Companies, or either of them, by the enforcement of any assessment or by any legal or equitable proceeding by virute of any statute or otherwise; it being expressly agreed and understood that this mortgage and the obligations hereby secured are solely corporate obligations and that no personal liability whatever shall attach to, or be incurred by, the incorporators, stockholders, officers or directors of the Companies, or either of them, or of any successor corporation or any or either of them, under or by reason of any or either of the obligations, covenants or agreements in this indenture, or in any of the bonds or coupons hereby secured, expressed and contained or implied therefrom, and that any and all personal liability of every name and nature, either at common law or in equity, or by statute, of every such incorporator, stockholder, officer or director, is hereby expressly waived as a condition of, and consideration for, the execution and issue of this mortgage and such bonds and coupons.

Article Nine.

Companies' Right to Possession and Satisfaction.

Right of possession in Companies until default

Section 1. Until some default shall have been made in the due and punctual payment of the interest, or of the principal, of the bonds hereby secured, or of some part of such interest or principal, or in the due and punctual performance and observance of some covenant or condition hereof obligatory upon the Companies, and until such default shall have continued beyond the period of grace, if any, herein provided in respect thereof, or until the Companies voluntarily shall have surrendered possession to the Trustee as herein permitted, the Companies, their successors and assigns, shall be suffered

and permitted to retain actual possession of all the premises hereby mortgaged (other than the railway equipment, vessels, colliers, boats and barges and the bonds, certificates of stock, cash and other property pledged or to be pledged hereunder with the Trustee) and the same and every part thereof, with the rights and franchises appertaining thereto, and the tolls, income, rents, issues and profits thereof to manage, operate, collect, receive, use and enjoy in any manner not inconsistent with the provisions hereof. It being, however, expressly understood and agreed that, simultaneously with the execution hereof, the Trustee, in such manner as it shall deem proper, may take possession, and thereafter shall maintain possession, of the railway, equipment, vessels, colliers, boats and barges hereby mortgaged and pledged, and that it may maintain its possession thereof either by itself or from time to time by leases thereof to the Philadelphia and Reading Railway Company, upon terms and by instruments to be approved by the Reading Company; but, unless and until in pursuance of some provision of Article Four of this indenture, the Trustee shall have proceeded, or shall have elected to proceed, to enforce some right under this indenture by foreclosure, entry or otherwise, the rent reserved and payable under such leases shall be paid to, and be received by, the Treasurer, for the time being, of the Reading Company, for and on account of the Trustee, as a separate Trust Fund, to be held and applied by such Treasurer in each instance in payment of the next ensuing semi-annual installment of interest to become due upon bonds hereby secured.

Right of possession in Companies until default.

SEC. 2. If, when the bonds hereby secured shall have become due and payable, the Companies shall well and truly pay, or cause to be paid, the whole amount of the principal moneys and interest due upon all of the bonds and coupons for interest thereon hereby secured, then outstanding, or shall provide for such payment by depositing with the Trustee hereunder for the payment of such bonds and coupons

Upon payment of bonds, mortgage to be satisfied.

Upon payment of bonds, mortgage to be satisfied.

the entire amount due thereon for principal and interest, and shall also pay, or cause to be paid, all other sums payable hereunder by the Companies, and shall well and truly perform all the things herein required to be performed by it, according to the true intent and meaning of this indenture, then and in that case all property, rights and interest hereby conveyed or pledged shall revert to the Companies, and the estate, right, title and interest of the Trustee shall thereupon cease, determine and become void, and the Trustee in such case, on demand of the Companies, and at their cost and expense, shall enter satisfaction of this indenture upon the records; otherwise, the same shall be, continue and remain in full force and virtue.

ARTICLE TEN.

GENERAL CLAUSES AS TO SUCCESSORS AND MERGERS.

Covenant to bind successors.

SECTION 1. All the covenants, stipulations, promises and agreements in this indenture contained, by or in behalf of the Companies, shall bind them and each of them severally and respectively and their and each of their successors and assigns, whether so expressed or not, and whenever necessary for the full protection and security of the securities and of the holders of bonds issued hereunder and hereby secured, are to be understood, and are also intended, to be the joint and several obligations of the Companies.

Either of the Companies may consolidate or sell its property, but subject to the lien of this mortgage.

SEC. 2. Nothing contained in this indenture, or in any bond hereby secured, shall prevent any lawful consolidation or merger of the Companies, or either of them, with each other or with any other corporation, or any conveyance and transfer, subject to the continuing lien of this indenture and to all the provisions thereof, of all the mortgaged and pledged premises of the Reading Company, or of the Coal Company, or of the property of the Philadelphia and Reading Railway Company, severally and respectively, in each separate case, as an entirety to some corporation at that time existing under and by virtue

of the laws of the United States or any State thereof, and lawfully entitled to acquire such portion of the property affected by this mortgage; provided, however, that such consolidation, merger or sale shall not impair the lien and security of this indenture, or any of the rights or powers of the Trustee, or of the bondholders hereunder, and that, upon any such consolidation, merger or sale, the due and punctual payment of the principal and interest of all of said bonds according to their tenor, and the due and punctual performance and observance of all the covenants and conditions of this indenture, shall be assumed by every corporation formed by such consolidation or merger, or purchasing as aforesaid.

Either of the Companies may consolidate or sell its property, but subject to the liens of this mortgage.

SEC. 3. In case either or both of the Companies, pursuant to Section 2 of this Article, shall be consolidated or merged with any other corporation, or shall sell, convey and transfer, subject to this indenture, all its mortgaged and pledged premises as an entirety as aforesaid, every successor corporation formed by such consolidation or into which the Companies, or either of them, shall have been merged, or which shall have purchased and received any conveyance and transfer as aforesaid, upon executing and causing to be recorded an indenture with the Trustee, satisfactory to the Trustee, whereby such successor corporation shall assume the due and punctual payment of the principal and interest of said bonds and the performance of all the covenants and conditions of this indenture, shall succeed to, and be substituted for, that one of the Companies, parties of the first and second parts hereto, to whose rights it shall have succeeded, with the same effect as if it had been named herein as a party of the first part or of the second part hereto, and every such successor corporation thereupon may cause to be signed and may issue, either in its own name or in the name of that one of the Companies to whose rights it shall have succeeded, any or all of such bonds which shall not theretofore have been signed by

Issue of bonds by successor Company, in case of sale or consolidation.

Issue of bonds by successor Company in case of sale or consolidation.

such one of the Companies and delivered to the Trustee, and subject to all the terms, conditions and restrictions herein prescribed, the Trustee shall certify and deliver any of such bonds which shall have been previously signed and delivered by the officers of the Companies to the Trustee for certification, and any of such bonds which such successor corporation shall thereafter cause to be signed and delivered to the Trustee for that purpose, upon the order of such successor corporation, instead of upon the order of that one of the Companies to whose rights it shall have succeeded. All bonds so issued shall in all respects have the same legal rank and security as the bonds theretofore or thereafter issued in accordance with the terms of this indenture, as though all of said bonds had been issued at the date of the execution hereof.

Powers vested in any successor company.

SEC. 4. For every purpose of this indenture, including the execution, issue and use of any and all bonds hereby secured, the term "Reading Company" includes and means not only the corporation of that name, party of the first part hereto, but also any such successor corporation, now existing or hereafter formed under the laws of the United States or of any State or States thereof. Every such successor corporation shall possess and from time to time may exercise each and every right and power hereunder of the Reading Company, in its name or otherwise. And similarly the term Coal Company includes and means not only the said The Philadelphia and Reading Coal and Iron Company, but also any such successor corporation to it; and every such successor corporation shall possess and from time to time may exercise each and every right and power hereunder of The Philadelphia and Reading Coal and Iron Company, in its name or otherwise.

SEC. 5. Any act or proceeding by any term of this indenture, or of any bond or resolution herein recited, required or provided to be done or performed by any board or officer of the

Companies, or either of them, shall and may, in event of any change in its existence, be done and performed with like force and effect by the like board or officer of any corporation that shall at the time be lawful sole successor of the Reading Company or of the Coal Company, as the case may require. Action may be taken by officers of successor company.

SEC. 6. Nevertheless, before the exercise of the powers conferred by this article, the Companies, by instrument in writing executed by authority of two-thirds of their respective boards of directors and delivered to the Trustee, may surrender any of the powers reserved to the Companies or to such successor corporation under this Article, and thereupon such power so surrendered shall terminate. Powers under this article may be surrendered.

ARTICLE ELEVEN.

The Companies may deem and treat the bearer of any coupon bond hereby secured, which shall not at the time be registered as hereinbefore authorized, and the bearer of any coupon for interest on any such bond, whether such bond shall be registered or not, as the absolute owner of such bond or coupon, as the case may be, for the purpose of receiving payment thereof and for all other purposes, and the Companies shall not be affected by any notice to the contrary. Companies may treat bearer of bonds and coupons as absolute owner.

ARTICLE TWELVE.

The Central Trust Company of New York, Trustee, party hereto of the third part, hereby accepts the trusts in this indenture declared and provided, and agrees to perform the same upon the terms and conditions hereinbefore set forth. Trustee's acceptance of Trust.

The words "the Trustee," or "said Trustee," or any other equivalent term, as used in this indenture (except when other- Definitions.

wise clearly indicated), shall be held and construed to mean the Trustee, or Trustees, for the time being, whether original or successor, and the words "Trustee," "bond," "bondholder" and "holder" shall include the plural as well as the singular number, and the term "majority" shall signify "majority in amount," whether or not so expressed.

Amounts subject to correction.

Any and all specifications of amounts of bonds or shares of stock pledged, or to be pledged, hereunder are and shall be subject to increase or diminution so as to conform to any corrected statement thereof to be made and delivered by the Companies to the Trustee at the time of delivery of such bonds or the certificates of such shares, and thence forward such corrected statement shall for all purposes hereof stand in place of such original specification, as a full substitute therefor, and such original specification shall be of no effect. All provisions of this indenture concerning any such pledge of bonds or stock or any issue or certification of bonds secured by this indenture in respect thereof shall be construed and applied in accordance with such corrected statement.

Execution of mortgage in counterparts.

In order to facilitate the record of this indenture, the same may be simultaneously executed in several counterparts, each of which so executed shall be deemed to be an original; and such counterparts shall together constitute but one and the same instrument.

In witness whereof, the Reading Company, the party hereto of the first part, and The Philadelphia and Reading Coal and Iron Company, the party hereto of the second part, have each caused this indenture to be signed and acknowledged or proved by its President, and its corporate seal to be hereunto affixed, and the same to be attested by the signature of its Secretary; and Central Trust Company of New York, the party of the third part, has caused its corporate seal to be hereunto affixed and attested by its Secretary, and

these presents to be signed and acknowledged or proved by its Second Vice-President the day and year first above written.

READING COMPANY,

Seal of Reading Company.

By

J. S. HARRIS,

President.

Attest:

W. G. BROWN,

Secretary.

THE PHILADELPHIA AND READING COAL AND IRON COMPANY,

Seal of P. & R. Coal & Iron Co.

By

J. S. HARRIS,

President.

Attest:

T. P. KAERCHER,

Secretary.

Signed, sealed and delivered on behalf of the Companies in the presence of

W. G. BROWN.

T. P. KAERCHER.

CENTRAL TRUST COMPANY OF NEW YORK,

Seal of Central Trust Co. of N. Y.

By

E. FRANCIS HYDE,

2d Vice-President.

Attest:

C. H. P. BABCOCK,

Secretary.

Signed, sealed and delivered on behalf of Central Trust Company of New York in the presence of

F. B. SMEDT.

F. L. GRANT.

COMMONWEALTH OF PENNSYLVANIA, } ss.:
City of Philadelphia, }

On the 6th day of March, 1897, before me, the subscriber, a Notary Public for the Commonwealth of Pennsylvania, residing in the City of Philadelphia, personally appeared W. G. Brown, Secretary of the above-named Reading Company (he being one of the subscribing witnesses to the sealing and delivery of the above indenture), who, being by me duly sworn according to law, did depose and say: That he was present at the execution of the said indenture, and did see Joseph S. Harris, the President of said corporation, affix the common or corporate seal of the said Reading Company thereto, and subscribe his name as President in attestation thereof; that the seal so affixed is the common or corporate seal of the said corporation, and that the said seal was so affixed, and the said indenture was duly sealed and delivered by the said President, as the act and deed of the said corporation, for the uses and purposes therein mentioned, in pursuance of a resolution of the Board of Directors duly passed at a meeting thereof, held the 23d day of December, A. D. 1896; that he saw F. P. Kaercher, the said subscribing witness, sign his name to the said indenture; and that the name of this deponent, subscribed to said indenture as Secretary of the said Company, in attestation of the due execution and delivery of the said indenture, and also subscribed as a witness to the sealing and delivery thereof, are of his (this deponent's) own handwriting.

W. G. BROWN.

Sworn and subscribed before me. }
Witness my hand and notarial }
seal the day and year aforesaid. }

C. K. KLINK,
Notary Public.

Seal of C. K. Klink, N. P.

COMMONWEALTH OF PENNSYLVANIA, }
City of Philadelphia, } ss.:

On the 6th day of March, 1897, before me, the subscriber, a Notary Public for the Commonwealth of Pennsylvania, residing in the City of Philadelphia, personally appeared F. P. Kaercher, Secretary of the above-named The Philadelphia and Reading Coal and Iron Company (he being one of the subscribing witnesses to the sealing and delivery of the above indenture), who, being by me duly sworn according to law, did depose and say: That he was present at the execution of the said indenture, and did see Joseph S. Harris, the President of said corporation, affix the common or corporate seal of the said The Philadelphia and Reading Coal and Iron Company thereto, and subscribe his name as President in attestation thereof; that the seal so affixed is the common or corporate seal of the said corporation, and that the said seal was so affixed, and the said indenture was duly sealed and delivered by the said President, as the act and deed of the said corporation, for the uses and purposes therein mentioned, in pursuance of a resolution of the Board of Directors duly passed at a meeting thereof, held the 23d day of December, A. D. 1896; that he saw W. G. Brown, the said subscribing witness, sign his name to the said indenture; and that the name of this deponent, subscribed to said indenture as Secretary of the said Company, in attestation of the due execution and delivery of the said indenture, and also subscribed as a witness to the sealing and delivery thereof, are of his (this deponent's) own handwriting.

F. P. KAERCHER.

Sworn and subscribed before me. }
Witness my hand and notarial }
seal the day and year aforesaid. }

C. K. KLINK,
Notary Public.

Seal of
C. K. Klink,
N. P.

STATE OF NEW YORK,
City and County of New York, } ss.:

On the eighth day of March, in the year 1897, before me personally came E. Francis Hyde, to me known, and who, being by me duly sworn, did depose and say that he resided in the City of New York; that he was the 2d Vice-President of Central Trust Company of New York, the corporation described in and which executed the foregoing instrument; that he knew the seal of said corporation; that the seal affixed to such instrument was such corporate seal; that it was so affixed by authority of the Board of Trustees of said corporation, and that he signed his name thereto by like authority.

FRANK B. SMEDT,
Notary Public,
N. Y. Co.

Seal of
Frank B. Smedt,
N. P.

STATE OF NEW YORK,
City and County of New York, } ss.:

I, HENRY D. PURROY, Clerk of the City and County of New York, and also Clerk of the Supreme Court for the said City and County, the same being a Court of Record, DO HEREBY CERTIFY, that Frank B. Smedt, whose name is subscribed to the Certificate of the proof or acknowledgment of the annexed instrument, and thereon written, was, at the time of taking such proof or acknowledgment, a Notary Public in and for the City and County of New York, dwelling in the said City, commissioned and sworn, and duly authorized to take the same. And further, that I am well acquainted with the handwriting of such Notary, and verily believe that the signature to the said certificate of proof or acknowledgment is genuine.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of the said Court and County the 9th day of March, 1897.

HENRY D. PURROY,
Clerk.

New York
Seal.

Government's Counsel offer in evidence **Mortgage by Philadelphia and Reading Railway Company to Central Trust Company of New York,** dated November 18, 1896, as follows:

An Indenture, Made the eighteenth day of November, 1896, by and between the

PHILADELPHIA AND READING RAILWAY COMPANY, a corporation created by and existing under the laws of the State of Pennsylvania, and owning railroads and leasehold estates hereinafter described (hereinafter called the Railway Company), party of the first part; and the

CENTRAL TRUST COMPANY OF NEW YORK, a corporation created by and existing under the laws of the State of New York (hereinafter called the Trustee), party of the second part:

WHEREAS, The Railway Company has acquired various railroads and properties by transfer thereof from Charles H. Coster and Francis Lynde Stetson, upon the express promise and agreement of the Railway Company, among other things, to make, execute and issue its bond for the principal sum of $20,000,000, payable January 1, 1997, with interest at the rate of six per cent. per annum, payable semi-annually on the first days of July and January in each and every year, such principal and interest being payable in gold coin of the present standard of weight and fineness, to be delivered to the said Coster and Stetson jointly and not severally, or to their survivor and successors; and also from time to time to make, execute and issue its further and additional bonds for the additional aggregate principal sum of $10,000,000, with like interest, to be used in part payment for new acquisitions, constructions and betterments upon the railroads and property of the Railway Company, all as herein provided; and

WHEREAS, The Board of Directors of the Railway Company, at a meeting thereof held at the Reading Terminal in the City

of Philadelphia, on this 18th day of November, in the year 1896, adopted resolutions authorizing and directing the President and the Secretary of the Railway Company, in its name and behalf, and under its corporate seal, to make, execute and deliver to the Central Trust Company of New York, as Trustee, a mortgage in this form then submitted to such meeting, upon all its present and future acquired property and franchises (except as herein otherwise stated) to secure such bond for $20,000,000 and interest, and also further and additional bonds for the additional aggregate principal sum of $10,000,000, with like interest; and

WHEREAS, Pursuant to said authority and direction, the President and the Secretary of the Railway Company this day have executed and have delivered to the said Coster and Stetson the bond of this Company for $20,000,000, dated November 18, 1896, and payable January 1, 1997, with interest at the rate of six per cent. per annum payable semi-annually as provided in said resolution; and

WHEREAS, On this 18th day of November, 1896, all the stockholders of the Railway Company owning and holding every share of its capital stock, viz., 400,000 shares of the par value of $50 each, did in writing assent to and approve of the said proceedings of the Board of Directors of the Railway Company, and particularly the execution and delivery of the said bond and mortgage, as so authorized at the said meeting of the Board of Directors of the Railway Company, which consent is in writing and is subscribed to the original minutes of said meeting; and

WHEREAS, In pursuance of said resolutions and consent, and of all and every legal power and authority in it vested, the Railway Company having made, executed and delivered the said bond for $20,000,000, proposes also to make and execute, and from time to time hereafter to issue and deliver bonds for

the additional aggregate principal sum of $10,000,000 as above set forth, all to be secured hereby;

Now, therefore, this Indenture witnesseth:

That in order equally and proportionately to secure the payment of the principal and interest of the said bond of twenty million dollars ($20,000,000), heretofore executed and delivered, and of all bonds for the additional aggregate principal sum not exceeding $10,000,000 at any time outstanding and lawfully issued as provided in such bonds and in this indenture, and also the performance of all covenants and conditions herein contained, and to declare the terms and conditions upon which such bonds are issued and received, the Railway Company, party of the first part, in consideration of the premises and of the purchase and acceptance of such bonds by the holders thereof, and of the sum of one dollar to it duly paid by the Trustee at or before the ensealing and delivery of these presents, the receipt whereof is hereby acknowledged, has executed and delivered these presents with all the covenants and conditions therein, and has granted, bargained, sold, aliened, remised, released, conveyed, confirmed, assigned, transferred and set over and by these presents does grant, bargain, sell, alien, remise, release, convey, confirm, assign, transfer and set over, unto the Trustee, party of the second part, its successors and assigns forever:

ALL THE ESTATE, RIGHT, TITLE AND INTEREST, OF EVERY NAME AND NATURE, OF THE RAILWAY COMPANY OF IN AND TO the following property, railroads and franchises, viz.:

1. The Main Line, extending from its termini at Port Richmond and Willow street wharf, on the Delaware river, in the city of Philadelphia, through the Schuylkill valley, via Reading, to its junction with the Mount Carbon Branch, at Mount Carbon, near Pottsville, in the county of Schuylkill (including the Tabor Branch extending from its connection with the Main Line at Nicetown to its connection with the North Pennsyl-

vania Railroad at Tabor Junction. The Venice Branch from its connection with the Main Line near Pencoyd to East Manayunk, the Bellevue Branch from its connection with the Norristown Railroad at Bellevue Station to East Falls; also Linden St. Yard, in Camden, N. J., connected by floats with Port Richmond, Philadelphia, Pa.), being one hundred and four and forty-four one-hundredths miles in length of double track, and two and eight one-hundredths miles in length of single track railroad, and embracing with its sidings and turnouts four hundred and forty-one and seventy-six one-hundredths miles of single track.

2. The Lebanon Valley Branch, extending from its junction with the said main line at Reading, in the county of Berks, through the Lebanon valley, via Lebanon to Harrisburg, in the county of Dauphin, including the Avon Branch from its connection with the Lebanon Valley Railroad east of Lebanon Station to Brock's furnaces; the Manufacturers' Branch from its connection east of Harrisburg to Harrisburg Car Works and the Steelton Branch from its connection east of Harrisburg to Steelton, Pa., being fifty-nine and twenty-nine one-hundredths miles in length, of which forty-five and nine-tenths miles are double track, and embracing, with its sidings and turnouts, one hundred and forty and eighty-eight one-hundredths miles of single track.

3. The Lebanon and Tremont Branch, extending from its junction with the said Lebanon Valley Branch at Lebanon, in the County of Lebanon, via Pine Grove to its termini at Brookside in the said County of Schuylkill, including the Lorberry Branch from its connection with the Lebanon and Tremont Branch at Lorberry Junction to Clark's Valley; the Good Spring Branch from its connection with the Lorberry Branch at Good Spring Junction to Good Spring breaker, being sixty-five and twenty-eight one-hundredths miles in length, and embracing, with its sidings, seventy-five and fifty-seven one-hundredths miles of single track.

4. The Mahanoy and Shamokin Branch, extending from its junction with the railroad of the Mile Creek and Mine Hill Navigation Railroad Co., near Newcastle, and from a point three hundred and sixty-five feet south of Mahanoy City Sta., in the said County of Schuylkill, via Mahanoy Plane and Ashland to Locust Dale, in the County of Columbia, and from a connection with the Mine Hill and Schuylkill Haven Railroad, at Locust Summit, via Shamokin, Trevorton and Herndon to its terminus at Port Trevorton, on the Susquehanna river, in the County of Snyder, including the Mahanoy City colliery branch, Elmwood colliery branch, Mahanoy City Jig House branch, Tunnel Ridge colliery branch, Fuel Plant branch, Knickerbocker colliery branch, Ellangowan colliery branch, Yatesville Washery branch, Bear Run colliery branch, Boston

Run colliery branch, Draper colliery branch, Gilberton colliery branch, Snyder Coal Co. branch, Lawrence colliery branch, Shenandoah branch, West Bear Ridge colliery branch, Hammond Branch, Hammond colliery branch, Girard Mammoth colliery branch, Old Locust Creek colliery branch, William Penn colliery branch, Turkey Run colliery branch, Kohinoor colliery branch, Shenandoah City colliery branch, Old Plank Ridge colliery branch, Indian Ridge colliery branch, Kehley Run colliery branch, Girard colliery branch, Preston No. 3 colliery branch, Potts colliery branch, Helfenstein branch, Monitor colliery branch, Alaska colliery branch, Mount Carmel branch, Reliance colliery branch, Mount Carmel colliery branch, Old Alaska Shaft branch, Enterprise colliery branch, Excelsior colliery branch, Old Greenback colliery branch, Buck Ridge colliery branch, Garfield colliery branch, Big Mountain colliery branch, Henry Clay colliery branch, Carbon Run branch, Burnside colliery branch, Herndon branch, North Franklin No. 2 colliery branch and North Franklin No. 1 colliery branch, being ninety-three and seventy-nine one-hundredths miles in length, of which twenty-six and one-tenth miles are double track, and embracing, with its sidings, one hundred and eighty-six and twenty-four one-hundredths miles of single track railroad.

5. The Mount Carbon branch, which extends from its junction with the said main line at Mount Carbon, in the said county of Schuylkill, to its termini at Mount Laffee and Wadesville, in the same county, being seven and forty-four one-hundredths miles in length, of which one and forty-five one-hundredth miles are double track, and embracing, with its branches and sidings, eighteen and thirty-three one-hundredth miles of single track railroad.

6. The Schuylkill and Susquehanna Branch, extending from its junction with the said main line at Auburn, in the said county of Schuylkill, to its junction with the Pennsylvania Railroad at Rockville, in the said county of Dauphin, being fifty-three and four-tenths miles in length, and embracing, with its branches, sidings and turnouts, sixty-two and seven-tenths miles of single track.

7. The Port Kennedy Branch, extending from its junction with the said main line at Port Kennedy, in the County of Montgomery, one and two-tenths miles in length and embracing, with its sidings and turnouts, one and three-tenths miles of single track;

8. The West Reading Branch, extending from its junction with the said Lebanon Valley Branch, in and through the City of Reading, in the county of Berks, to the foot of Sixth street, in said city two and seventeen one-hundredths miles in length, and embracing with its sidings and turnouts, five and twenty-five one-hundredths miles of single track;

9. The Moselem Branch, extending from its junction with the said main line at Leesport, in Berks county, and reaching with a lateral the Leesport Iron Company's furnace, one and nine-tenths miles in length, and embracing, with its laterals and sidings, a distance of two and six-tenths miles of single track;

10. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for nine hundred and ninety-nine years from the first day of December, 1870, in pursuance of a lease dated November 10th, 1870, duly recorded) of, in and to the Philadelphia, Germantown and Norristown Railroad, which extends from its junction with the said main line at Ninth and Willow streets, in the said city of Philadelphia, to its termini at Norristown, in the said county of Montgomery, and Germantown, in the county of Philadelphia, being twenty and five-tenth miles in length of which twenty and two-tenths miles are double-track railroad, and embracing, with its sidings and turnout, seventy-nine and sixty-two hundredths miles of single track.

11. Also, all the estate, right title and interest of the party of the first part (being a leasehold interest of nine hundred and ninety-nine years from the first day of December, 1870, in pursuance of a lease dated November 10th, 1870, duly recorded) of, in and to the Plymouth Railroad, which extends from its junction with the said Philadelphia, Germantown and Norristown Railroad, at Conshohocken, in the said county of Montgomery, to its junction with the North Pennsylvania Railroad at Oreland in said county, being eight and nine-tenths miles in length, and embracing with its turnouts and sidings, twelve and twenty-three hundredths miles of single track.

12. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for twenty years from the first day of January, 1870, in pursuance of a lease dated 17th January, 1870), of, in and to the Colbrookdale Railroad which extends from its junction with the said main line at Pottstown, in the said county of Montgomery, through the valley of the Manatawny to Mount Pleasant, now Barto, in the said county of Berks, being twelve and nine-tenth miles in length, and embracing, with its sidings and turnouts, fifteen and nine-tenths miles of single tracks.

13. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for nine hundred and ninety-nine years, from the first day of May, 1869, in pursuance of a lease dated May 19th, 1869, duly recorded) of, in and to the East Pennsylvania Railroad which extends from its junction with the said main line at Reading, in the said County of Berks to its present terminus at Allentown, in the county of Lehigh, being thirty-five and thirty-three one-hundredths miles in length, of which eighteen and twenty-three one-hundredths miles are double-track railroad, embracing

with its sidings and laterals, seventy-one and eight one-hundredths miles of single track.

14. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for nine hundred and ninety-nine years from the twenty-fifth day of July, 1861, in pursuance of a lease of that date), duly recorded of, in and to the railroad of the Schuylkill Valley Navigation and Railroad Company which extends from its junction with the Mount Carbon and Port Carbon Railroad near Port Carbon in the said county of Schuylkill, to its junction with the railroad of the said Little Schuylkill Navigation, Railroad and Coal Company, near Reevesdale, in the same county, including Brockville branch, Eagle Hill branch, Silver Creek branch, Big Vein branch and Coal Hill branch, being sixteen and twenty-nine one-hundredth miles in length, of which five and fourteen one-hundredth miles are double track railroad, embracing, with its sidings and turnouts, twenty-six and sixty-seven one-hundredth miles of single track.

15. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for nine hundred and ninety-nine years from the twenty-fifth day of July, 1861, in pursuance of a lease of that date, duly recorded) of, in and to the railroad of the Mill Creek and Mine Hill Navigation and Railroad Company, which extends from its junction with the said Mount Carbon and Port Carbon Railroad near Port Carbon, in the said county of Schuylkill, to its junction with the said Mahanoy and Shamokin Branch at or near New Castle, in the same county, including North American branch, Crow Hollow branch, John's branch and Jones' branch, being six and sixty-two one-hundredth miles in length, of which three and eight-tenth miles are double track and embracing with its sidings and turnouts twenty-nine and four-tenth miles of single track.

16. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for fifty years from the fifth day of March, 1860, in pursuance of a lease of that date, duly recorded) of, in and to the said Mount Carbon and Port Carbon Railroad, which extends from its junction with the said main line near Mount Carbon, in the said county of Schuylkill, to its junction with the railroads of the said Mill Creek and Mine Hill and the Schuylkill Valley Navigation and Railroad Companies at or near Port Carbon, in the same county, including Port Carbon branch from Port Carbon valley scales to Allisons shops, being two and ninety-six one-hundredth miles in length, of which two and fifty-four one-hundredth miles are double track, and embracing with its sidings and turnouts nineteen and thirteen one-hundredth miles of single track.

17. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for the term of nine hundred and ninety years from the first day of May, A. D. 1879, in pursuance of a lease from the North Pennsylvania Railroad Company bearing date the fourteenth day of May, A. D. 1879, duly recorded), of, in and to the main line of the Railroad of the North Pennsylvania Railroad Company, extending from its terminus in Philadelphia at Willow street to Bethlehem, in the county of Lehigh, being fifty-five and fifty-seven hundredths miles in length, of which fifty-four and five-tenths miles are double track railroad, and embracing with its sidings and laterals, other than the two branches hereinafter mentioned, one hundred and fifty-three and thirty-one hundredths miles of single track, and the branches of said main line of the North Pennsylvania Railroad known and designated in said lease as the "Delaware River Branch" and "Doylestown Branch," the former extending from its connection with the said main line of the North Pennsylvania Railroad at Jenkintown, in the county of Montgomery and State of Pennsylvania, to its connection with the railroad of the Delaware and Bound Brook Railroad Company at the centre of the bridge crossing the river Delaware near Yardley, in the county of Bucks and State aforesaid, being twenty and five- tenths miles in length of double-track railroad, and embracing, with its sidings and laterals, fifty-two and one-tenth miles of single track, and the latter extending from its connection with said main line at Lansdale, in the said county of Montgomery, to Doylestown, in the said county of Bucks, being ten and fifteen hundredths miles in length, and embracing, with its sidings and turnouts, eleven and seventy-six hundredths miles of single track.

18. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for the term of nine hundred and ninety years from the first day of May, A. D. 1879, in pursuance of a lease from the Delaware and Bourd Brook Railroad Company, bearing date the fourteenth day of May, A. D. 1879, duly recorded), of, in and to the railroad of the said Delaware and Bound Brook Railroad Company, extending from its connection with the Delaware River Branch of the North Pennsylvania Railroad, at the centre of the bridge crossing the Delaware river near Yardley, to Bound Brook Junction, in the county of Somerset, State of New Jersey, together with the branch railroad known as the Trenton Branch, extending from its connection with the main line of said railroad, at a point known as Trenton Junction, in the county of Mercer, in the State of New Jersey, to Trenton in said State, three and seven-tenth miles in length, being thirty and eighty-one hundredths miles in length, of which twenty-seven miles are double track, and embracing with its sidings and laterals, seventy-three and fourteen hundredths miles.

19. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for the term of twenty-nine years from the first day of September, A. D. 1871, in pursuance of a lease dated January 18th, 1872, duly recorded of, in and to the railroad of the Pickering Valley Railroad Company, extending from its junction with the main line aforesaid, at Phœnixville, in the county of Chester, to Byers Station, a distance of eleven and three-tenths miles, and embracing with its laterals and sidings, twelve and four-tenths miles of single track.

20. Also, all the estate, right, title and interest of the parties of the first part (being a leasehold interest for the term of nine hundred and ninety-nine years from the first day of July, A. D. 1873, in pursuance of a lease from the Philadelphia, Wilmington and Baltimore Railroad Company, bearing date the first day of July, A. D. 1873, duly recorded), of, in and to the railroad known as the Philadelphia and Chester Branch, extending from Gray's Ferry, in the city of Philadelphia, to Eddystone, in the county of Delaware, a distance of nine and eight-tenths miles in length, and embracing, with its sidings and turnouts, fifteen miles of single track.

21. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for nine hundred and ninety-nine years from the first day of May, Anno Domini one thousand eight hundred and eighty-three, in pursuance of a lease of the eleventh day of April, one thousand eight hundred and eighty-three, duly recorded), of, in and to The Schuylkill and Lehigh Railroad, which extends from its southern terminus at its junction with The Wilmington and Northern Railroad, on Ezra High's farm in Cumru Township, Berks County, to its northern terminus at or near Slatington, in Lehigh County, Pennsylvania, being forty-four miles in length and embracing, with its sidings and turnouts, forty-nine and twenty-four hundredths miles of single track.

22. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for nine hundred and ninety-nine years from the second day of July, Anno Domini one thousand eight hundred and eighty-three, in pursuance of a lease of that date), of, in and to The Shamokin, Sunbury and Lewisburg Railroad, which extends from Carbon Run Junction to West Milton Junction, in the State of Pennsylvania, being thirty-one and twenty eight hundredths miles in length, of which fourteen and eighty one-hundredths miles are double track, and embracing, with its sidings and turnouts, fifty-eight and eight one-hundredths miles.

23. Also all the estate, right, title and interest of the party of the first part (being a leasehold interest for a term of nine hundred and ninety-nine years from the fifteenth day of October, A. D. eighteen hundred and ninety, in pursuance of

a lease from the Philadelphia, Harrisburg and Pittsburgh Railroad Company, bearing date the fifteenth day of October, A. D. eighteen hundred and ninety, to The Philadelphia and Reading Railroad Company, duly recorded) of, in and to the railroads of the Philadelphia, Harrisburg and Pittsburgh Railroad Company, the main line of which extends from its terminus at Harrisburg, in the County of Dauphin, to Shippensburg, in the County of Cumberland, including the Philadelphia and Reading ore branch of the Cleversburg branch, being forty-five and fifty-eight one-hundredths miles in length, and embracing, with its sidings and turnouts, fifty-six and forty-eight one-hundredths miles of single track.

24. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for a term of nine hundred and ninety-nine years from the first day of May, eighteen hundred and ninety-one, in pursuance of a contract and agreement made between the Philadelphia and Reading Terminal Railroad Company, The Philadelphia and Reading Railroad Company and the Provident Life and Trust Company, of Philadelphia, Trustee, bearing date the first day of May, A. D. eighteen hundred and ninety-one, duly recorded) of, in and to the Philadelphia and Reading Terminal Railroad, which extends from its connection with the Philadelphia, Germantown and Norristown Railroad at Fairmount Avenue, and from its connection with the Main Line of the Philadelphia and Reading Railroad Company at Broad Street, to its terminus at Twelfth and Market Streets, within the City of Philadelphia, being one and three-tenths miles in length of double track, and embracing, with its sidings and turnouts, five and sixty-eight one-hundredths miles of single track.

25. Also, all the estate, right, title and interest of the party of the first part (being a leasehold interest for nine hundred and ninety-nine years from the tenth day of July, 1889, in pursuance of a contract and agreement made between the Allentown Terminal Railroad Company, the Lehigh Coal and Navigation Company and The Philadelphia and Reading Railroad Company, bearing date the tenth day of July, 1889, duly recorded) of, in and to the Allentown Terminal Railroad, extending from its point of connection with the Lehigh and Susquehanna Railroad in Hanover Township, Lehigh County, crossing the Lehigh River and Kline's Island, in and through Saulsburg Township, to the City of Allentown, and crossing the Lehigh River, to its northern connection with the Lehigh and Susquehanna Railroad, and also the branch from a point near the Barber Branch of the Lehigh Valley Railroad to a connection with the East Pennsylvania Railroad, and another branch from the connection with the East Pennsylvania Railroad to the main line of the Allentown Terminal Railroad, being three and one-third miles in length.

AND, ALSO, ALL THE RIGHT, TITLE AND INTEREST HEREAFTER TO BE ACQUIRED by the Railway Company (by lease or otherwise) in or to the property, railroad or franchises of the following five railroad corporations of the State of Pennsylvania, viz:

(26) Mine Hill and Schuylkill Haven Railroad Company.

(27) Catawissa Railroad Company.

(28) Little Schuylkill Navigation, Railroad and Coal Company, including

(29) the East Mahanoy Railroad Company.

(30) Chestnut Hill Railroad Company.

BEING a part of the same railroads and interests in railroads conveyed to the said Charles Henry Coster and Francis Lynde Stetson, by the deed of the Pennsylvania Company for Insurances on Lives and Granting Annuities, as Trustee, dated the twenty-third day of October, one thousand eight hundred and ninety-six, and by the deed of The Philadelphia and Reading Railroad Company to said Charles Henry Coster and Francis Lynde Stetson, bearing date the twenty-third day of October, one thousand eight hundred and ninety-six, as by reference to said deeds, duly recorded will more fully and at large appear; and by said Coster and Stetson conveyed to the party of the second part hereto by deed dated November 16th, 1896, and delivered to and accepted by the Railway Company November 17th, 1896, and this mortgage being given to secure part of the purchase price stated in such last-named conveyance:

ALSO ALL THE RIGHT, TITLE, ESTATE, INTEREST, PROPERTY and franchises of the Railway Company of, in and to any and all other lines of railway, extension and branches, now owned, leased or held by the Railway Company, or in which it has any interest whatsoever, wherever located, notwithstanding the same may not be particularly set forth or described in this indenture:

INCLUDING any and all roadbed, superstructure, rights of way, rails, tracks, sidetracks, bridges, viaducts, buildings, depots, stations, warehouses, car-houses, engine houses, freight-houses, coal-houses, wood-houses, machine shops and other

shops, turn-tables, water-stations, fences, docks, structures, erections and fixtures, and all other things of whatever kind in any wise or at any time belonging or appertaining to any line of railway, or to any branch, operated line or leasehold, at any time subject to the lien of this indenture, or provided for use thereon, or in connection therewith; and any and all lands designed for depots, warehouses or other structures at any terminus, or upon and along such lines of railway, or upon or along any such branch, operated line or leasehold; and any and all locomotives, engines, cars and other rolling stock, equipment, machinery, instruments, tools, implements, materials, furniture and other chattels wheresoever situated, now or hereafter held, or acquired by the Railway Company for use upon such lines of railway or branches, or upon any other line or branch, or upon any operated line or leasehold; and any and all leaseholds, leases, rights under lease, or contracts, covenants and agreements, terms or parts of terms and any and all other property, real or personal, of every kind and description, now or hereafter acquired by the Railway Company for use upon or in connection with, or for the purpose of, such lines of railway branches or operated lines or leaseholds at any time subject to the lien hereof; and any and all corporate or other rights, privileges and franchises which the Railway Company now has, or hereafter shall acquire, possess or exercise for, or appertaining to, the construction, maintenance use or operation of such lines of railway or branches or operated lines or leaseholds or any part thereof; and any and all the rents, issues, profits, tolls and other income of such lines of railway, or branches or operated lines or leaseholds, or any part thereof and of any and all the rights, privileges, franchises, properties, real or personal, rights and things which the Railway Company may or shall hereafter possess or become entitled to possess, for the purpose of, or in connection with such lines of railway or any such branch or operated line or any such leasehold:

INCLUDING also all franchises, lines of railway, extensions branches, telegraph lines and other property, which have been conveyed or sold to the Railway Company by the said Charles H. Coster and Francis Lynde Stetson, in their deed dated November 16, 1896; and also all stocks, bonds, certificates of indebtedness, claims and other property of every name and nature now owned or hereafter acquired by the Railway Company, which by any provision of this indenture it is required to pledge, assign or transfer to the Trustee; and also all the right, title, interest and property which the Railway Company now has, or at any time hereafter may acquire, in or to any of the property, real, personal or mixed, hereby mortgaged, conveyed and assigned, or intended so to be; and

ALSO, all property of every name and nature, from time to time hereafter, by delivery or by writing of any kind, for the purposes hereof, pledged, assigned or transferred by the Railway Company or by any one in its behalf to the Trustee, which is hereby authorized to receive any property at any and all times, as and for additional security, and also, when and as hereinafter provided, as substituted security, for the payment of bonds issued or to be issued hereunder, and to hold and apply any and all such property subject to the terms hereof.

To have and to hold, the premises, railroads, properties real or personal, rights, franchises, estates, appurtenances, stocks and bonds hereby conveyed and assigned, or intended to be conveyed or assigned, unto the Trustee, its successor or successors and assigns forever.

But in trust, nevertheless, for the equal and proportionate benefit and security of all present and future holders of the bonds and interest obligations issued and to be issued under and secured by this indenture, and for the enforcement of the payment of said bonds and interest obligations, when payable, and the performance of and compliance with, the

covenants and conditions of this indenture; without preference, priority or distinction as to lien or otherwise of any one bond over any other bond by reason of priority in the issue or negotiation thereof, so that each and every bond, issued and to be issued as aforesaid, shall have the same right, lien and privilege under and by this indenture, and that the principal and interest of every such bond shall, subject to the terms hereof, be equally and proportionately secured hereby, as if all had been made, executed, delivered and negotiated simultaneously with the execution and delivery of this indenture; it being intended that the lien and security of this indenture shall take effect from the day of the date hereof without regard to the date of actual issue, sale or disposition of said bonds, and as though, upon this day, all of said bonds were actually issued, sold and delivered to, and in the hands of innocent holders for value.

And it is hereby expressly covenanted that all such bonds and the coupons for interest thereon are to be issued, certified and delivered, and that the mortgaged premises are to be held by the Trustee, subject to the further covenants, conditions, uses and trusts hereinafter set forth; and it is covenanted between the parties hereto as follows, viz.:

Article One

Section 1. All bonds to be secured hereby shall, from time to time, be executed and delivered by the Railway Company to the Trustee for certification, and thereupon the Trustee shall certify and deliver the same as provided in this Article, and not otherwise. The aggregate principal sum of the bonds issued and outstanding under this indenture at any one time shall never exceed $30,000,000.

Only such bonds as shall be duly authenticated by the Trustee's certificate by it duly executed shall be secured by

this indenture or shall be entitled to any lien or benefit hereunder; and every such certificate of the Trustee upon any bond executed in behalf of the Railway Company shall be conclusive evidence that the bond so certified has been duly issued hereunder and is entitled to the benefit of the trust hereby created. On request of the Railway Company such certificate shall be made and bonds shall be delivered hereunder, in advance of registration or record of this indenture, but the Railway Company shall cause record of this indenture as a mortgage upon real estate to be made with all convenient speed.

The Trustee shall not certify or deliver any registered bonds bearing interest from any date more than six months prior to such certification or delivery.

SEC. 2. Of the bonds authorized to be issued under and secured by this indenture, one bond for the principal sum of twenty million dollars ($20,000,000), immediately upon the execution or delivery hereof, or as soon as may be thereafter, shall by the Trustee be certified and delivered to Charles H. Coster and Francis Lynde Stetson, jointly and not severally, or their survivor or successors, without accountability by them, or such survivor or successors, for the disposition or use thereof, and from time to time thereafter, at the joint request of the said holder of such bond for the time being and of the Railway Company, the Trustee, by endorsement upon such bond, may cancel in whole or in part the sum payable thereon, and to the extent of such cancellation may certify bonds of like tenor and date, but of smaller denomination, in sums of $1,000 or of some multiple thereof; and may deliver such substitute bonds according to the written directions contained in such joint request for such cancellation.

SEC. 3. The remainder of the authorized issue hereunder, amounting to $10,000,000 of said bonds, shall be reserved, to

be executed, and to be certified by the Trustee, when and as called for by resolution of the Board of Directors as next hereinafter provided, but only that the same from time to time may be used, and may be delivered to the Reading Company to reimburse it for one-half of the amount of the advances by it theretofore actually made subsequent to January 1, 1897, at the request, or with the approval, of the Railway Company, for the following purposes, or for some one or more of them, viz.:

For the construction or acquisition, on and after January 1st, 1897, of branch lines, extensions, terminal properties, rolling stock or other additional property; or for the construction of betterments, subsequent to said date; all such construction, or betterments, or property acquired, to be upon, along or appurtenant to lines of railway, branches or terminal properties of the Railway Company, at the time of such use subject to the lien of this indenture, or upon, along, or appurtenant to one or more of the leasehold estates hereinabove specifically granted hereunder whether now held or hereafter acquired; it being intended that such branch lines, extensions or terminal properties or other new property may be constructed or acquired by and in the name of the Railway Company, or by or for account of any lessor of any of the said leasehold estates specifically granted hereunder.

THE BONDS RESERVED UNDER THIS SECTION 3 (ARTICLE ONE, shall be certified by the Trustee and delivered to the Railway Company, or upon its order, as follows, and not otherwise, viz.:

(1) Such bonds shall be certified and delivered by the Trustee only as and when it shall receive a copy of a resolution of the board of directors of the Railway Company, certified by its Secretary or Assistant Secretary, calling for the certification and delivery of such bonds, and stating that such bonds are required and are to be used only for the purposes authorized by this Section.

(2) In each calendar year after December 31, 1896, there shall be so certified and delivered such amount not exceeding $1,500,000 par value of such bonds, as from time to time, shall be called for in such resolutions (the bonds to be in sums of $1,000 or such multiples thereof as the Railway Company shall require); but in every instance, before certifying and delivering any of the bonds reserved under this Section, the Trustee shall require the Railway Company to furnish, in addition to such resolution of the Board, the verified certificate or certificates of some person or persons, stating as of his or their own knowledge:

(*a*) that the bonds called for in such resolution are required, and are to be used, to reimburse the Reading Company as above provided for not more than one-half of the amount of its advances theretofore so made for such purposes, or for some one or more of them, specifically indicating every acquisition or construction of any railroad, track, structure, betterment, rolling stock or other property, for which such advances shall have been so made by the Reading Company, which acquisition or construction in every instance shall at the date of such certificate either be actually owned by the Railway Company, or shall then be connected with and attached to one or more of the said leasehold estates above specified in the granting clauses of this indenture; and such certificates also shall state in detail the amount of bonds to be applied in reimbursing the Reading Company for each and every such purpose, and whether such acquisition or construction was by or in the name of the Railway Company, or was by or for account of any lessor as herein authorized; and also that neither any advance by the Reading Company nor any acquisition, construction or expenditure in such certificate stated has been included or allowed for in any previous certificate;

(*b*) that no part of the sums so advanced on account of any of said leasehold estates can be collected in money from

the lessor thereof under the terms of the lease thereof as now existing or hereafter modified;

(*c*) That the price to be paid in such bonds, to reimburse the Reading Company for its advance for such construction or acquisition, does not exceed one-half of the fair value of such work done or property acquired, estimating such bonds at the fair market price which, as nearly as may be at the time of determining such price, the Reading Company shall have realized for its own four per cent. general mortgage bonds now about to be created;

(*d*) that the bonds delivered to the Railway Company pursuant to the resolution last preceding the delivery of such present resolution and certificate have been actually and duly delivered to the Reading Company to reimburse it for not more than the one-half of the advances by it made in respect of which such last preceding certificate shall have been made.

(*e*) In case of the acquisition hereunder of any new property, every such verified certificate also shall state whether the property so acquired is known, or believed, to be subject to any lien, or charge or ownership, prior to this indenture, other than (1) outstanding old bonds now existing on the property of the Railway Company as such bonds now exist or shall hereafter be extended, or as bonds shall be issued in renewal thereof; or (2) bonds then existing upon any property then held by the Railway Company by virtue of some lease above specified in the granting clauses hereof, or of some modification thereof or substitute therefor made, as herein permitted; or (3) the interest of any of the said lessors in any such new property connected with any such leasehold estate; or (4) mortgage bonds, or other liens, or charges held by the Trustee, or in respect of which, as hereinafter provided, bonds shall have been reserved hereunder; or (5) undetermined liens or charges incidental to construction; or (6) ordinary operating accounts; and the amount of any such prior lien or

charge (other than as aforesaid) known or believed to exist shall be specifically stated in such verified certificate.

(*f*) Any such verified certificate under this Section may state any other facts pertaining to the right to certify and to deliver bonds hereunder.

(3) The Railway Company shall not by use of any such bonds reserved under this Section reimburse the Reading Company for any advances by it made in any one year to enable the Railway Company to acquire or to construct new property, if such new property acquired or constructed in such year, shall be subject to any ownership prior to this indenture, or to any lien, or charge prior hereto, which shall in the aggregate exceed $2,000,000, excepting, however, (1) old bonds now existing on the property of the Railway Company as such bonds now exist or shall herafter be extended, or as bonds shall be issued in renewal thereof: or (2) bonds or other liens then existing upon any property then held by the Railway Company by virtue of some lease above specified in the granting clauses of this indenture or of some extension, renewal or substitution of some such lease: or (3) the interest of any of said lessors in any such new property connected with any such leasehold estate, or (4) mortgage bonds or other liens held by the Trustee, or in respect of which, bonds shall have been reserved hereunder: or (5) undetermined liens or charges incidental to construction: or (6) ordinary operating accounts.

(4) In case such bonds shall be used to reimburse the Reading Company for any part of its advances made to enable the Railway Company to acquire any property subject to any such certified lien, charge or indebtedness (not including, however, liens, charges and indebtedness of the six classes above excepted), then, during the continuance of such lien, charge or indebtedness, there shall be reserved out of the bonds set apart under this Section an amount at par equivalent to such certified liens, charges or indebtedness; and the bonds so reserved shall be taken from the $1,500,000 bonds under this Sec-

tion deliverable in such calendar year, or in the next two succeeding calendar years, as may be agreed between the Railway Company and the Trustee. After such reservation, the bonds so reserved shall, from time to time, be executed and certified upon the order of the Railway Company and delivered only when and as, from time to time, such certified liens, charges or indebtedness shall be retired or acquired in amounts equivalent at least to the par amount of the bonds certified and delivered therefor, and all the liens, charges or indebtedness so retired or acquired shall be canceled, or, if practicable, shall be assigned to and held by the Trustee in such a manner as, in its judgment, shall best protect the holders of the bonds hereby secured.

(5) Every such verified certificate, unless signed (*a*) by the President or one of the Vice-Presidents, and (*b*) by the Comptroller, or Auditor, or Treasurer, of the Railway Company, shall be accompanied by a written statement of one of the officers first-above designated and also one of the officers secondly-above designated that they believe such certificate to be true, and that no part of the expenditures therein certified represents ordinary maintenance of the railway or other property owned, leased or in any way controlled by the Railway Company, or replacements or other purposes ordinarily treated by railroad companies as a part of their operating expenses. Together with such statements and verified certificates, there shall be delivered to the Trustee such further instruments and conveyances (except in respect of additions to property in which a leasehold estate is hereinabove granted hereunder), as may be necessary to vest in the Trustee, so far as practicable, all new property so acquired, and, so far as may be, any and all other liens, charges or indebtedness taken up or acquired by means of advances from the Reading Company reimbursed to it partly by means of the said bonds; and also the written opinion of counsel of the Railway Company to the effect that such instruments and conveyances are

sufficient for that purpose, or that no additional instrument or conveyance is necessary. Such resolutions, statements, verified certificates and opinion shall be deemed and taken as plenary authority to the said Trustee for its certification of such bonds under the foregoing provisions of this Article.

Except to retire or acquire liens, charges or indebtedness for which bonds so used shall have been reserved, as hereinbefore provided, bonds shall not be issued or certified under this Section in excess of an aggregate amount of $1,500,000 in any one calendar year; nor shall they be issued or certified on account of any railroad or property held or controlled by the Railway Company otherwise than by ownership, except in respect of additions to property embraced under one or more of the leases above specified in the granting clauses of this indenture, or under some extension, renewal or substitution of some such lease.

SEC. 4. The Railway Company from time to time, and at all times shall deliver to the Trustee as part of the mortgaged premises and as additional security for the bonds issued hereunder any and all stocks, bonds or other securities which it shall receive from any lessor of any leasehold estate mortgaged hereunder for or on account of any construction, acquisition or betterment connected with or attaching to such leasehold estate, so far as any such construction, acquisition or betterment shall be specified in any certificate hereunder or reimbursed to the Reading Company by the use of bonds secured hereby.

SEC. 5. In case any bond issued hereunder shall become mutilated or be destroyed, the Railway Company, in its discretion, may issue, and the Trustee, in its discretion, may certify and deliver a new bond of like tenor and date, bearing the same serial number, in exchange and substitution for, and upon cancellation of, the mutilated bond, or in lieu of, and substitution for, the bond so destroyed, upon receipt of satisfactory evidence

of the destruction of such coupon bond and its coupons, or of such registered bond, and upon receipt also of satisfactory indemnity.

SEC. 6. Nothing in this Article, or in any other Article of this indenture, expressed or implied, is intended, or shall be construed, to confer upon any person or corporation, other than the parties hereto and the holders of bonds issued under and secured by this indenture, any legal or equitable right, remedy or claim upon, under or in respect of this indenture, or any covenant, condition or stipulation thereof; all its covenants, conditions and stipulations being intended to be, and being for the sole and exclusive benefit of the parties hereto, and of the holders of bonds hereby secured.

ARTICLE TWO.

THE RAILWAY COMPANY COVENANTS AS FOLLOWS:

SECTION 1. It will well, duly and punctually pay, or cause to be paid, to every holder of any bond issued and secured hereunder, the principal and interest accruing thereon, at the dates and place and in the manner mentioned in such bonds, according to the true intent and meaning thereof, without deduction from either principal or interest for any tax or taxes imposed by the United States, or any State or Municipality thereof, which the Railway Company may be required to pay or retain therefrom under or by reason of any present or future law.

SEC. 2. All lines of railway and property of every kind, and all interest therein, when and as hereafter acquired by the Railway Company as above provided in Article One, immediately upon, and subject to the terms and conditions of, such acquisition, and without any further conveyance or assignment, shall become, and be subject to the lien of this indenture as fully and as

completely as though now owned by the Railway Company, and expressly and specifically conveyed by, and embraced in, the granting clauses of this indenture; but at any and all times the Railway Company will execute and deliver any and all such further assurances or conveyances thereof as the Trustee may reasonably direct or require, for the purpose of expressly and specifically subjecting the same to the lien of this indenture.

SEC. 3. Whenever demanded by the Trustee, the Railway Company, so far as practicable, will grant, convey, confirm, assign, transfer and set over unto the Trustee all real and personal estate, corporate rights and franchises which, in any way or manner, it shall acquire as appurtenant to, or for use upon, any railroad or leasehold estate hereby mortgaged (including all railroads and leasehold estates which shall hereafter become subject to the lien of this mortgage); and it will also do, execute and deliver, acknowledge or cause to be done, executed, acknowledged and delivered all and every such further acts, deeds, conveyances and transfers, and assurances in the law, for the better assuring, conveying and confirming unto the Trustee all and singular the hereditaments and premises, estates and property hereby conveyed, or intended so to be, or which the Railway Company has herein covenanted and agreed hereafter to convey to the Trustee, as it shall reasonably require for the better accomplishing the provisions and purposes of this indenture, and for securing payment of the principal and interest of the bonds intended to be hereby secured.

SEC. 4. The Railway Company will, at an office or agency to be maintained by it in the City of Philadelphia, keep a sufficient register or registers of bonds issued hereunder, which registers at all reasonable times shall be open to the inspection of the Trustee; and, upon presentation for such purpose, it will, under such reasonable regulations as it may prescribe, register therein any bond issued under the provisions hereof.

As to all bonds so registered, the person in whose name the same shall be registered shall for all purposes of this indenture be deemed and regarded as the owner thereof, and thereafter payment of, or on account of, the principal and interest of such bond shall be made only to such registered holder or upon his order; but such registration may be changed as hereinafter provided. All such payments so made shall be valid and effectual to satisfy and discharge the liability upon such bond to the extent of the sum or sums so paid.

Upon presentation of any bond which shall have been registered as aforesaid, with the order or assignment of the registered holder, the same shall be transferred upon such register to the assignee thereof named in such written order or assignment, and thereafter such transferee or transferees of such bond shall be held to be the owner or owners thereof, and from time to time such transfers may be made as so directed by the registered holder of any such bond for the time being.

SEC. 5. The Railway Company will not voluntarily create or suffer to be created any lien or charge prior to the lien of these presents, upon the mortgaged premises, or any part thereof, or upon the income thereof (except upon some leasehold hereinbefore granted and as provided in the lease thereof), though it reserves, and from time to time may exercise, the right to extend the time for the payment of any bonds secured by mortgage upon the property above described or on any part thereof, or in substitution for any such existing bonds to issue new bonds of lien prior to that of this indenture, but not for an aggregate principal sum, nor at a rate of interest, larger than that now charged on such property by such existing liens; and the principal and interest of all such new or extended bonds may be made expressly payable in gold coin of the United States of the present standard of weight and fineness; and within six months after the same shall accrue it will pay all lawful claims and demands of mechanics, laborers and

others, which, if unpaid, might by law, be given precedence to this indenture as a lien or charge upon the mortgaged premises or any part thereof, or the income thereof.

SEC. 6. The Railway Company from time to time will pay and discharge all taxes, assessments and governmental charges lawfully imposed upon the lines of railroad, and the leasehold estates and other premises hereby mortgaged, or upon any part thereof, or upon the income and profits thereof, the lien of which would be prior to the lien hereof, so that the priority of this indenture shall be fully preserved in respect of such properties; and also will maintain and preserve unimpaired all its rights under the leases above specifically granted hereunder except as the same may be modified, renewed or substituted as herein expressly permitted.

SEC. 7. The Railway Company will not issue, negotiate, sell or dispose of any bonds hereby secured, otherwise than in accordance with the provisions of this indenture; and in issuing, selling, negotiating or otherwise disposing of such bonds, from time to time, it will well and truly apply, or cause to be applied, the same, or the proceeds thereof, to and for purposes herein prescribed, and to and for no other or different purpose.

ARTICLE THREE

SECTION 1. No claim for interest on any bond which in any way, on or after maturity, shall have been transferred or pledged, separate and apart from the bond to which it relates, shall, unless accompanied by such bond, be entitled, in case of a default hereunder, to any benefit of, or from, this indenture, except after the prior full payment of the principal of all bonds issued hereunder, and of all interest obligations not so transferred or pledged.

SEC. 2. In case (1) default shall be made in the payment of any interest on any bond at any time issued under and secured by this indenture, and any such default shall continue for a period of six months; or in case (2) default shall be made in the due and punctual payment of the principal of any bonds secured hereby; or in case (3) default shall be made by the Railway Company in the payment of any tax, assessment or other governmental charge lawfully imposed or levied upon any part of the property and premises hereby mortgaged, or the income and profits thereof, and such default shall continue for a period of six months after written notice thereof from the Trustee or from holders of five per cent. in amount of the bonds hereby secured; or in case (4) the Railway Company shall make default in the due observance and performance of any other covenant or condition herein contained, and any such default shall continue for a period of six months after written notice thereof from the Trustee or from the holders of five per cent. in amount of the bonds hereby secured; then, and in each and every such case of default (provided, however, in respect of each of the three cases so indicated that such default shall have continued for six months as aforesaid), the Trustee personally, or by its agent or agents, attorney or attorneys, may enter into and upon all or any part of the railways, rolling stock, property and premises, lands, rights, interests and franchises hereby conveyed, or intended so to be, and each and every part thereof, and may exclude the Railway Company, its agents and servants, wholly therefrom, and having and holding the same may use, operate, manage and control said railways and other premises, regulate the tolls for the transportation of passengers and freight thereon, and conduct the business thereof, either personally or by its superintendents, managers, receivers, agents and servants or attorneys, to the best advantage of the holders of the bonds hereby secured in accordance with law and with any statute relating to said railways and other premises or any part thereof, or to the

operation thereof; and, upon every such entry the Trustee, at the expense of the trust estate, from time to time, by purchase, repairs or construction, may maintain and restore, and insure or keep insured, the rolling stock, tools and machinery and other property, buildings, bridges and structures erected or provided for use in connection with said railways and other premises, and whereof it shall become possessed, as aforesaid, in the same manner and to the same extent as is usual with railway companies, and likewise from time to time, at the expense of the trust estate, may make all necessary or proper repairs, renewals and replacements and useful alterations, additions, betterments and improvements thereto and thereon, as well in respect of the rolling stock as in respect of the railways and appurtenances and other subject matters as to it may seem judicious; and it may collect and receive all tolls freights, incomes, rents, issues and profits of the same and every part thereof, and also the income from stocks and bonds pledged hereunder, and after deducting the expenses of operating said railways and other premises, and of conducting the business thereof, and of all repairs, maintenance, renewals, replacements, alterations, additions, betterments and improvements, and all payments which may be made for taxes, assessments, insurance and prior or other proper charges upon the said premises and property, or any part thereof, including any interest paid on bonds prior in lien to those secured hereby, as well as just and reasonable compensation for its own services and for all agents, clerks, servants and other employees by it properly engaged and employed, it shall apply the moneys arising as aforesaid as follows:

In case the principal of the bonds hereby secured shall not have become due, to the payment of the interest remaining in default, in the order of the maturity of the installments of such interest, with interest thereon at the rate of four per cent. per annum;

such payments to be made ratably to the persons or parties entitled thereto without discrimination or preference;

In case the principal of the bonds hereby secured shall have become due by declaration or otherwise, first to the payment of the accrued interest (with interest thereon at the rate of six per cent. per annum) in the order of the maturity of the installments thereof, and next to the payment of the principal of all bonds hereby secured; in every instance such payments to be made ratably to the persons or parties entitled to such payment, without any discrimination or preference;

These provisions, however, are not intended in any wise to modify the provisions of Section 1 of this Article.

In case, and during such continuance, of any such default in either of the first three cases specified in this section, either with or without entry by the Trustee, and also in the fourth case, if the Trustee shall have entered or shall have elected to enter as aforesaid, the Trustee shall have, exercise and enjoy the right to vote on all shares of stock pledged or agreed to be pledged hereunder, and, for the benefit of the holders of bonds hereby secured, the right to receive and collect all interest moneys and dividends maturing or payable upon all pledged bonds and stocks, and to apply, as hereinbefore provided, the net moneys received, and as holder of such shares of stock and of such bonds pledged or agreed to be pledged in this indenture, to perform any and all acts, and to make or execute any and all requests, requisitions or other instruments. In the event that the Trustee shall have entered into possession of the mortgaged premises, it may, from time to time, in its discretion, turn over any part or all of the interest, moneys and dividends so collected by it to any Receiver then in possession of the mortgaged railways.

SEC. 3. In case default shall be made by the Railway Company in the payment of any interest on any bond hereby secured, and such default shall continue for a period of six months, then and in every case of such continuing default, upon the written request of the holders of a majority in amount of the bonds hereby secured then outstanding, the Trustee, by notice in writing delivered to the Railway Company, shall declare the principal of all bonds hereby secured then outstanding to be due and payable immediately, and upon any such declaration the same shall become and be immediately due and payable, anything in this indenture or in said bonds contained to the contrary thereof in anywise notwithstanding. This provision is, however, subject to the condition that, if at any time after the principal of said bonds shall have been so declared due and payable, all arrears of interest upon all such bonds, with interest at the rate of six per cent. per annum on overdue installments of interest, shall either be paid by the Railway Company or be collected out of the mortgaged premises before any sale of the mortgaged premises shall have been made, then and in every such case the holders of a majority in amount of the bonds hereby secured then outstanding, by like written notice to the Railway Company and to the Trustee, may waive such default and its consequences; but no such waiver shall extend to or affect any subsequent default, or impair any right consequent thereon.

In case the Trustee shall have proceeded to enforce any right under this indenture by foreclosure, entry or otherwise, and such proceedings shall have been discontinued or abandoned because of such waiver, or for any other lawful reason, or shall have been determined adversely to the Trustee, then and in every such case the Railway Company shall be restored to its former position and rights hereunder in respect of the mortgaged premises and the shares of stock and bonds, and other property, herein pledged or agreed to be pledged; and,

upon the written request of the Railway Company, the Trustee shall do, make, execute, acknowledge and deliver such acts, deeds, instruments and assurances in the law as may be required to effectuate such purpose; but, nevertheless, all rights, remedies and power of the Trustee shall survive and continue as though no such proceedings had been taken.

SEC. 4. In case (1) default shall be made by the Railway Company in the payment of any interest on any bond secured by this indenture, and any such default shall continue for a period of six months; or in case (2) default shall be made by the Railway Company in the due and punctual payment of the principal of any bond secured hereby, or in case (3) default shall be made by the Railway Company in the payment of any tax, assessment or other governmental charge lawfully imposed or levied upon any part of the mortgaged property or premises or the income or profits thereof, and such default shall continue for a period of six months after written notice thereof from the Trustee or from the holders of five per cent. in amount of the bonds hereby secured, or in case (4) the Railway Company shall make default in the due observance and performance of any other covenant, or condition herein contained, and any such default shall continue for a period of six months after written notice thereof from the Trustee or from the holders of five per cent. in amount of the bonds hereby secured; then, and in each and every such case of default (provided, however, in respect of each of the three cases so indicated, that such default shall have continued for six months as aforesaid), the Trustee, with or without entry, personally or by attorney, in its discretion (*a*) may sell to the highest and best bidder, all and singular the mortgaged property and premises, bonds and stocks, rights, franchises and interests, lands and appurtenances, and other real and personal property of every kind, and all right, title and interest, claim and demand therein, and right of redemption thereof, in one

lot and as an entirety, unless a sale in parcels shall be required under the provisions of Section 6 of this Article, in which case such sale may be made in parcels as in said Section provided, which sale or sales shall be made at public auction at such place in the City of Philadelphia, in the State of Pennsylvania, or at such other place, and at such time and upon such terms, as the Trustee may fix and briefly specify in the notice of sale to be given as herein provided; or (*b*) immediately upon the expiration of the six months in the three cases so indicated, and immediately upon default in payment of principal, in the other case may proceed to protect and enforce the rights of bondholders under this indenture, by a suit or suits in equity or at law, whether for the specific performance of any covenant or agreement contained herein, or in aid of the execution of any power herein granted, or for the foreclosure of this indenture, or for the enforcement of any other appropriate legal or equitable remedy, as the Trustee, being advised by counsel learned in the law, shall deem most effectual to protect and to enforce any of its rights or duties hereunder.

Upon the written request of the holders of twenty-five per cent. in amount of the bonds hereby secured, in case of any such continuing default, it shall be the duty of the Trustee upon being indemnified as hereinafter provided to take all needful steps for the protection and enforcement of its rights and the rights of the bondholders secured hereby, and to exercise the powers of entry and sale herein conferred, or both, or to take appropriate judicial proceedings by action, suit or otherwise, as the Trustee being advised by counsel learned in the law shall deem most expedient in the interest of the holders of the bonds hereby secured.

SEC. 5. Anything in this indenture contained to the contrary notwithstanding, the holders of seventy-five per cent. in amount of the bonds hereby secured and then outstanding in case of

any subsisting default, from time to time, shall have the right to direct and control the method and place of conducting any and all proceedings for any sale of the premises hereby conveyed and pledged, or agreed or intended so to be, or for the foreclosure of this indenture, or for the appointment of a Receiver, or of any other proceedings hereunder.

SEC. 6. In the event of any sale, whether made under the power of sale hereby granted and conferred, or under or by virtue of judicial proceedings, or of some judgment or decree of foreclosure and sale, the whole of the property hereby mortgaged and pledged shall be sold in one parcel and as an entirety, including all the rights, title, estates, lands, railroads, equipment, franchises, leases, leasehold interests, contracts, and other real and personal property of every name and nature, unless the holders of a majority in amount of the bonds hereby secured then outstanding shall in writing request the Trustee to cause said premises to be sold in parcels, in which case the sale shall be made in such parcels as may be specified in such request or petition, or unless such sale as an entirety is impracticable by reason of some statute or other cause; and this provision shall bind the parties hereto and each and every of the holders of the bonds and coupons hereby secured or intended so to be.

SEC. 7. Notice of any such sale pursuant to any provision of this indenture, shall state the time and place, when and where the same is to be made, and shall contain a brief general description of the property to be sold, and shall be sufficiently given if published once in each week for four successive weeks next prior to such sale in a newspaper published in New York, N. Y.; a newspaper published in Philadelphia, Pennsylvania, and a newspaper published in Reading, Pennsylvania.

SEC. 8. Upon the completion of any sale or sales under

this indenture, the Trustee shall make, execute and deliver to the accepted purchaser or purchasers a good and sufficient deed, or good and sufficient deeds, of conveyance of the property and franchises sold. And the Trustee and its successors are hereby appointed the true and lawful attorney or attorneys, irrevocable, of the Railway Company, in its name and stead to make all necessary deeds and conveyances of property, and for that purpose it and they may execute all necessary acts of assignment and transfer, and may substitute one or more persons with like power, the Railway Company hereby ratifying and confirming all that its said attorney or attorneys, or such substitute or substitutes, shall lawfully do by virtue hereof.

Any such sale or sales made under or by virtue of this indenture, whether under the power of sale hereby granted and conferred, or under or by virtue of judicial proceedings, shall operate to divest all right, title, interest, claim and demand whatsoever, either at law or in equity, of the Railway Company of, in and to the premises sold, and shall be a perpetual bar, both at law and in equity, against the Railway Company, its successors and assigns, and against any and all persons claiming or to claim the premises sold, or any part or parcel thereof, by, from, through or under the Railway Company, its successors and assigns, or any of them.

The personal property and chattels conveyed, or intended to be conveyed by or pursuant to this indenture, shall be real estate for all the purposes of this indenture, and shall be held and taken to be fixtures and appurtenances of the said railroads and part thereof, and are to be used and sold therewith and not separate therefrom, except as herein otherwise provided.

SEC. 9. The Trustee, from time to time may adjourn any sale to be made by it under the provisions of this indenture, by announcement at the time and place appointed for such sale, or

for such adjourned sale or sales; and without further notice or publication, it may make such sale at the time and place to which the same shall be so adjourned.

SEC. 10. The receipt of the Trustee shall be a sufficient discharge to the purchaser or purchasers of the property sold as aforesaid, for the purchase money, and no such purchaser or purchasers, or his, their or its representatives, vendees, grantees or assigns, after paying such purchase money and receiving such receipt, shall be bound to see to the application of such purchase money upon or for any trust or purpose of this indenture, or in any manner whatsoever be answerable for any loss, misapplication or non-application of any such purchase money, or any part thereof, or be bound to inquire as to the authorization, necessity, expediency or regularity of any such sale.

SEC. 11. In case of any such sale, whether under the power of sale hereby granted, or pursuant to judicial proceedings, and whether for default in payment of interest only, or because of the breach of some other covenant or condition of this indenture, the whole of the principal sum of the bonds hereby secured, if not previously declared due, shall at once become due and payable, anything in said bonds or in this indenture to the contrary notwithstanding.

SEC. 12. The proceeds or avails of any such sale, whether under the power of sale hereby granted or pursuant to judicial proceedings, and the purchase money paid thereon, together with any sums which may be held by the Trustee under any of the provisions of this indenture, at the time of, or after such sale, as part of the trust estate or the proceeds thereof, shall be applied as follows:

First. To the payment of the costs and expenses of such sale, including a reasonable compensation to the

Trustee, its agents, attorneys and counsel, and of all expenses, liabilities and advances made and incurred by the Trustee in managing and maintaining the property hereby conveyed or so intended to be, and of all taxes, assessments or liens prior to the lien of these presents, except any taxes, assessments or other superior liens to which such sales shall have been made subject.

Second. To the payment of the whole amount then owing or unpaid upon the bonds hereby secured for principal and interest, with interest at the rate of six per cent. per annum on the overdue installments of interest, and in case such proceeds shall be insufficient to pay in full the whole amount so due and unpaid upon the said bonds, then to the payment of such principal and interest, without preference or priority of principal over interest, or of interest over principal, or of any installment of interest over any other installment of interest, ratably, to the aggregate of such principal and accrued and unpaid interest, subject, however, to the provisions of Section 1 of this Article.

Third. To the payment of the surplus, if any, to the Railway Company, its successors or assigns, or to whomsoever may be lawfully entitled to receive the same.

SEC. 13. The Railway Company covenants that in case (1) default shall be made in the payment of any interest on any bonds at any time outstanding and secured by this indenture, or in case (2) default shall be made in the payment of the principal of any such bonds when the same shall become payable, whether at the maturity of said bonds or by declaration as authorized by this indenture, or by a sale of the mortgaged premises as hereinbefore provided, then, upon demand of the Trustee, the Railway Company will pay to the Trustee the whole amount of the interest or of the interest and principal due and payable on all the bonds hereby secured then out-

standing, with interest at the rate of six per cent. per annum upon the over-due principal and installments of interest; and in case the Railway Company shall fail to pay the same, forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, shall be entitled to recover judgment for the whole amount so due and unpaid.

The Trustee shall be entitled to recover judgment as aforesaid, either before, or after, or during the pendency of, any procedings for the enforcement of the lien of this indenture upon the mortgaged and pledged premises, and the right of the Trustee to recover such judgment shall not be affected by any entry or sale hereunder, or by the exercise of any other right, power or remedy for the enforcement of the provisions of this indenture or the foreclosure of the lien thereof; and in case of a sale of the mortgaged premises and of the application of the proceeds of sale to the payment of the mortgaged debt, the Trustee, in its own name and as Trustee of an express trust, shall be entitled to enforce payment of, and to receive all amounts then remaining due and unpaid upon any and all of the bonds issued hereunder and then outstanding, for the benefit of the holders thereof, and shall be entitled to recover judgment for any portion of the mortgage debt remaining unpaid, with interest. No recovery of any such judgment by the Trustee and no levy of any execution upon any such judgment upon property subject to the lien of this indenture, or upon any other property, shall in any manner, or to any extent, affect the lien of the Trustee upon the mortgaged premises or any part thereof, or any rights, powers or remedies of the Trustee hereunder, or any rights, powers or remedies of the holders of the bonds hereby secured, but such lien, rights, powers and remedies shall continue unimpaired as before.

All moneys collected by the Trustee under this Section shall be distributed and paid over by it to the persons registered as holders of the registered bonds at the time of payment, and the persons presenting the coupon bonds and

coupons for such payment, without any preference or priority of any kind, and ratably according to the amounts which shall have become due upon such bonds and coupons respectively.

SEC. 14. The Railway Company will not at any time insist upon or plead, or in any manner whatever claim, or take the benefit or advantage of, any stay or extension law now or at any time hereafter in force in any locality where the mortgaged premises or pledged property, or any part of either, may or shall be situate, nor will it claim, take or insist on, any benefit or advantage from any law now or hereafter in force, providing for the valuation, or appraisement, of the mortgaged premises, or pledged property, or any part thereof, prior to any sale or sales thereof to be made pursuant to any provision herein contained, or to the decree of any court of competent jurisdiction; nor after any such sale or sales will it claim or exercise any right under any statute to redeem the property so sold, or any part thereof; and it hereby expressly waives all benefit and advantage of any such law or laws; and it covenants that it will not hinder, delay or impede the execution of any power herein granted and delegated to the Trustee, but that it will suffer and permit the execution of every such power, as though no such law or laws had been made or enacted.

SEC. 15. Upon filing a bill in equity, or upon commencement of any other judicial proceedings to enforce any right of the Trustee or of the bondholders under this indenture, the Trustee shall be entitled to exercise the right of entry herein conferred, and also any and all other rights and powers herein and hereby conferred upon, and provided to be exercised by, the Trustee upon the occurrence and continuance of default as hereinbefore provided; and, in any case of any default entitling it to enter as provided in Section 2 of Article Four hereof, as matter of right, the Trustee shall be entitled to the appointment of a Receiver of the premises hereby mortgaged, and of the earnings, income, revenue, rents, issues or profits thereof,

with such powers as the Court making such appointment shall confer; but notwithstanding the appointment of any Receiver, the Trustee shall be entitled, as pledgee, to continue to retain possession and control of the stocks, bonds, cash and other property pledged or to be pledged with the Trustee hereunder.

SEC. 16. The Railway Company at any time hereafter before full payment of the bonds secured hereby, and whenever it shall deem expedient for the better security of such bonds, although there be then no default entitling the Trustee to enter into possession, may, with the consent of the Trustee, surrender and deliver to the Trustee full possession of the whole or any part of the property, premises and interests hereby conveyed, or intended so to be, for any period fixed or indefinite. Upon such surrender and delivery to the Trustee, with its consent, the Trustee shall enter into and upon the premises so surrendered and delivered, and shall take and receive possession thereof for such period, fixed or indefinite, as aforesaid, without prejudice, however, to its right at any time subsequently, when entitled thereto by any provision hereof, to insist upon and to maintain such possession, though beyond the expiration of any prescribed period. Upon any such voluntary surrender and delivery of said property and premises, or of any part thereof, the Trustee, from the time of its entry, shall work, maintain, use, manage, control and employ the same in accordance with the provisions of this Indenture, and shall receive and apply the income and revenues thereof as provided in Section 2 of this Article. Upon application of the Trustee, and with consent of the Railway Company if there be then no subsisting default hereunder, and without such consent if there shall then be a subsisting default entitling the Trustee to enter as provided in Section 2 of Article Four hereof, a Receiver may be appointed to take possession of, and to operate, maintain and manage the whole or any part of said property wheresoever the same may be situated, with all the rights, powers and duties

by this section conferred upon the Trustee, and the Railway Company shall transfer and deliver to such Receiver all such property in his possession wheresoever the same may be situated; provided, however, that, notwithstanding the appointment of any such Receiver, the Trustee, as pledgee, shall be entitled to retain possession and control of the stocks, bonds, cash and other property pledged with Trustee hereunder.

SEC. 17. No holder of any bond or coupon hereby secured shall have any right to institute any suit, action or proceeding in equity or at law for the foreclosure of this indenture or for the execution of any trust thereof, or for the appointment of a Receiver, or for any other remedy hereunder, unless such holder shall previously have given to the Trustee written notice of such default and of the continuance thereof, as hereinbefore provided, nor unless, also, the holders of twenty-five per cent. in amount of the bonds hereby secured and then outstanding shall have made written request of the Trustee, and shall have afforded to it reasonable opportunity either itself to proceed to exercise the powers hereinbefore granted, or to institute such action, suit or proceeding in its own name, nor unless, also, they shall have offered to the Trustee adequate security and indemnity against the cost, expenses and liabilities to be incurred therein or thereby; and such notification, request and offer of indemnity are hereby declared in every such case, at the option of the Trustee, to be conditions precedent to the execution of the powers and trusts of this indenture and to any action, or cause of action, for foreclosure or for the appointment of a Receiver, or for any other remedy hereunder; it being understood and intended that no one or more holders of bonds and coupons shall have any right in any manner whatever to affect, disturb or prejudice the lien of this indenture by his or their action, or to enforce any right hereunder, except in the manner herein provided, and that all proceedings at law or in equity shall be instituted, had and maintained in the manner

herein provided and for the equal benefit of all holders of such outstanding bonds and coupons.

SEC. 18. Except as herein expressly provided to the contrary, no remedy herein conferred upon or reserved to the Trustee or to the holders of bonds hereby secured is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative, and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute.

SEC. 19. In case of any sale hereunder, any and all purchasers in making settlement or payment, shall be entitled to turn in any bonds hereby secured, estimating the value of such bonds for that purpose at the sum payable for the principal and interest thereof out of the net proceeds of such sale to the holder or holders of such bonds as his or their ratable share of such net proceeds, after allowing for the proportion of the total payment required to be made in cash for the cost and expenses of the sale or otherwise; and if such share of net proceeds shall be less than the amount then due upon such bonds, such purchaser or purchasers may make such settlement by receipting on the bonds the amount to be credited thereupon; and at any such sale any bondholder may bid for and purchase such property, and, upon compliance with the terms of sale, may hold, retain, and dispose of, such property without further accountability therefor.

SEC. 20. No delay or omission of the Trustee, or of any holder of bonds hereby secured, to exercise any right or power arising from any default continuing as aforesaid, shall impair any such right or power, or shall be construed to be a waiver of any such default or an acquiescence therein.

ARTICLE FOUR.

Any request or other instrument required by this indenture to be signed and executed by bondholders may be in any number of concurrent instruments of similar tenor, and may be signed and executed by such bondholders in person or by agent appointed in writing. Proof of the execution of any such request or other instrument, or of a writing appointing any such agent, and of the holding by any person of coupon bonds transferable by delivery, shall be sufficient for any purpose of this indenture, if made in the following manner:

The fact and date of the execution by any person of any such request, or other instrument, or writing, may be proved by the certificate of any notary public, or other officer authorized to take acknowledgments of deeds to be recorded in Pennsylvania or New York, that the person signing such request or other instrument acknowledged to him the execution thereof, or by an affidavit of a witness of such execution.

The amount of bonds transferable by delivery, held by any person executing any such request or other instrument as the holder of bonds, and the amounts and issue numbers of the bonds held by such person, and the date of his holding the same may be proved by a certificate executed by any trust company, bank, bankers or other depositary (wherever situated), whose certificate shall be deemed by the Trustee to be satisfactory, showing that such person had on deposit with such depositary the bonds described in such certificate at the date therein mentioned. The ownership of registered bonds shall be proved by the registers of such bonds as may be hereafter provided.

Such proof shall be conclusive in favor of the Trustee with regard to any action taken by it under such request or other instrument.

ARTICLE FIVE.

SECTION 1. Upon the written request of the Railway Company, approved by resolution of its Board of Directors or Executive Committee, from time to time while the Railway Company is in possession of the mortgaged premises, but subject to the conditions and limitations in this Section prescribed, and not otherwise, the Trustee shall release from the lien and operation of this indenture any part of the mortgaged premises; *provided*, that no part of the lines of track or of the roadway shall be released unless the Railway Company shall have ceased to use the same as part of its lines of railroad, and no part of such railway shall be so abandoned or released if thereby the continuity of the lines of railway of the Railway Company shall be broken; and *provided, further*, that no part of the mortgaged premises appurtenant or incidental to the maintenance or operation of any part of the lines of railway subject to the lien of this indenture shall be released hereunder, unless at the time of such release the same shall no longer be requisite for any purpose for which it shall have been acquired or used, or shall no longer be necessary or expedient to be retained in connection with such lines of railway; and also *provided, further*, that such power of release shall be exercised only in case the premises released shall no longer be required in the operation of the railways or in the business of the Railway Company.

No such release shall be made unless the Railway Company shall have sold, or shall have contracted to exchange for other property, or to sell, the property so to be released; and, unless some other disposition thereof be required by some prior mortgage, the proceeds of any and all such sales, and all moneys received as compensation for any property subject to this indenture taken by exercise of the power of eminent domain, shall be set apart and applied, with the approval of the Trustee, to the purchase of other property, real or personal,

which shall be conveyed in trust by the Railway Company to the Trustee, subject to all the trusts hereby declared, or in betterments of or improvements upon any part of the mortgaged premises. Any new property acquired by the Railway Company to take the place of any property released hereunder, *ipso facto*, shall become and be subject to the lien of this indenture, as fully as if specifically mortgaged hereby, but, if requested by the Trustee, the Railway Company will convey the same to the Trustee by appropriate deeds upon the trusts and for the purposes of this indenture.

The Railway Company, from time to time, while in possession of the mortgaged premises shall also have full power, in its discretion, to dispose of any portion of the machinery, equipments and implements, at any time held or acquired for the use of any lines of railway which may have become unfit for such use, replacing the same by new machinery, equipment or implements, which shall become subject to the operation of this indenture.

In no event shall any purchaser or purchasers of any property sold or disposed of under any provision of this Article of this indenture be required to see to the application of the purchase money.

In case the mortgaged premises shall be in the possession of a Receiver lawfully appointed, the powers in and by this Section conferred upon the Railway Company may be exercised by such Receiver with the approval of the Trustee; and if the Trustee shall be in possession of the mortgaged premises under any provision of this indenture, then all the powers by this Section conferred upon the Railway Company may be exercised by the Trustee in its discretion.

A certificate signed by (1) the president or a vice-president and (2) the chief engineer of the Railway Company may be received by the Trustee as conclusive evidence of any of the facts mentioned in this Section and shall be full warrant to the Trustee for its action on the faith thereof; but the Trustee,

in its discretion, may require such further and additional evidence as to it may seem reasonable.

SEC. 2. In case at any time it shall become necessary, or in the judgment of the Trustee shall be for the interest of the bondholders hereby secured, or for the benefit of the mortgaged property, that the Railway Company shall make changes or alterations in or substitutions of any leases, trackage rights or contracts by which the Railway Company shall have secured access to any point or points, the Railway Company, with the written consent of the Trustee, may make any such changes, alterations or substitutions, and may make or cause to be made, executed and delivered, all such instruments in writing as may be proper and necessary to carry out and perfect any and all changes, alterations or substitutions authorized in this section.

At the same time provision shall be made by instruments in writing satisfactory to the Trustee so that such modified, altered or substituted leases, contracts or trackage rights forthwith shall become bound by and be subject to the terms of this indenture in the same manner as the prior leases, contracts and trackage rights.

ARTICLE SIX.

SEC. 1. The Trustee shall not be answerable for the default or misconduct of any agent or attorney appointed by it in pursuance hereof, if such agent or attorney shall have been selected with reasonable care; or for anything whatever, in connection with this trust, except wilful misconduct or gross negligence. The Trustee shall not be personally liable for any debts contracted by it or for damages to persons or property carried or injured, or for salaries or non-fulfillment of contracts, during any period wherein the Trustee shall manage the trust prop-

erty or premises upon entry or voluntary surrender as aforesaid. The Trustee shall not be under any obligation to take any action towards the execution or enforcement of the trust hereby created, which, in its opinion, shall be likely to involve it in expense or liability, unless one or more of the holders of the bonds hereby secured shall, as often as required by the Trustee, furnish it reasonable indemnity against such expense or liability; nor shall the Trustee be required to take notice of any default hereunder unless notified in writing of such default by the holders of at least five per cent. of the bonds hereby secured then outstanding, or to take any action in respect of any default unless requested in writing to take action in respect thereof by the holders of not less than twenty-five per cent. of the bonds hereby secured then outstanding, and tendered reasonable indemnity as aforesaid, anything herein contained to the contrary notwithstanding; but neither any such notice or request, nor this provision therefor, shall affect any discretion herein given to the Trustee to determine whether or not it shall take action in respect of such default, or to take action without such request. The Trustee shall not be responsible for the recording of this indenture or for the filing of the same as a chattel mortgage.

The Trustee shall be entitled to reasonable compensation for all services rendered by it in the execution of the trusts hereby created.

SEC. 2. The Trustee, or any Trustee hereafter appointed may resign, and be discharged of the trusts created by this indenture by giving notice thereof to the Railway Company and to the bondholders, by publication, at least twice a week, for four successive weeks, in one newspaper at that time published in New York, N. Y.; one newspaper published in Philadelphia, Penn., and one newspaper published in Reading, Penn., and by due execution of the conveyance herein required.

The Trustee may be removed at any time by an instrument

in writing under the hands of three-quarters in amount of the holders of the bonds secured hereby and then outstanding.

SEC. 3. In case at any time the said Trustee, or any trustee hereafter appointed, shall resign or be removed or otherwise become incapable of acting, a successor, or successors, may be appointed by the holders of a majority in amount of the bonds hereby secured and then outstanding, by an instrument or concurrent instruments signed by such bondholders or their attorneys in fact duly authorized; provided, nevertheless, and it is hereby agreed and declared that, in case at any time there shall be a vacancy in the office of trustee hereunder, the Railway Company, by an instrument executed by order of its board of directors, may appoint a trustee to fill such vacancy until a new trustee shall be appointed by the bondholders or as hereinafter authorized. The Railway Company shall thereupon publish notice of such appointment once a week for six successive weeks in a newspaper published in New York, N. Y.: a newspaper published in Philadelphia, Penn., and a newspaper published in Reading, Penn.; and any new trustee so appointed by the Railway Company shall immediately, and without further act, be superseded by a trustee appointed in the manner above provided by the bondholders prior to the expiration of ninety days after such publication of notice. In case no such appointment shall be made by the bondholders prior to the expiration of such ninety days, a new trustee, to supersede the trustee appointed by the Railway Company, may nevertheless, be appointed by any judge of the United States Circuit Court for the Third Circuit or by any court of competent jurisdiction in the premises upon the application of one-quarter in amount of the bondholders. Every such trustee appointed in place of Central Trust Company of New York, or its successor in the trust, shall always be a trust company in good standing, doing business in the City of New York, and having a capital and surplus aggregating at least $2,000,000, if there be

such a trust company willing and able to accept the trust upon reasonable or customary terms.

Any new trustee appointed hereunder shall execute, acknowledge and deliver to the trustee last in office, and also to the Railway Company, an instrument accepting such appointment hereunder, and thereupon such new trustee shall become vested with all the estates, properties, rights, powers and trusts of its or his predecessor in the trust hereunder with like effect as if originally named as trustee herein without any further act, deed or conveyance; but the trustee ceasing to act shall, nevertheless, on the written request of the new trustee, execute, and deliver an instrument transferring to such new trustee, upon the trusts herein expressed, all the estates, properties, rights, powers, and trusts of the trustee so resigning or removed, and shall duly assign, transfer and deliver any stocks, bonds or other property and moneys held by such trustee to the new trustee so appointed in its or his place.

Should any deed, conveyance or instrument in writing from the Railway Company be required by any new trustee, for more fully and certainly vesting in and confirming to such new trustee such estate, rights, powers and duties, any and all such deeds, conveyances and instruments in writing shall, on request, be made, executed, acknowledged and delivered by the Railway Company.

Article Seven.

No recourse under any obligation, covenant or agreement of this indenture, or of any bond or coupon hereby secured, shall be had against any incorporator, stockholder, officer or director of the Railway Company, or of any successor corporation, either directly or through the Railway Company, by the enforcement of any assessment or by any legal or equitable proceeding by virtue of any statute or otherwise; it being expressly agreed and understood that this mortgage and the obligations hereby secured are solely corporate obligations, and

that no personal liability whatever shall attach to, or be incurred, by the incorporators, stockholders, officers or directors of the Railway Company, or of any successor corporation or any or either of them, under or by reason of any or either of the obligations, covenants or agreements in this indenture, or in any of the bonds or coupons hereby secured, expressed and contained or implied therefrom, and that any and all personal liability of every name and nature, either at common law or in equity, or by statute, of every such incorporator, stockholder, officer or director, is hereby expressly waived as a condition of, and consideration for, the execution and issue of this mortgage and such bonds and coupons.

Article Eight.

Section 1. Until some default shall have been made in the due and punctual payment of the interest, or of the principal, of the bonds hereby secured, or of some part of such interest or principal, or in the due and punctual performance and observance of some covenant or condition hereof obligatory upon the Railway Company, and, until such default shall have continued beyond the period of grace, if any, herein provided in respect thereof, or until the Railway Company voluntarily shall have surrendered possession to the Trustee as herein permitted, the Railway Company, its successors and assigns, shall be suffered and permitted to retain actual possession of all the premises hereby mortgaged (other than bonds, certificates of stock, cash and other property pledged or to be pledged hereunder with the Trustee) and the same and every part thereof, with the rights and franchises appertaining thereto, and the tolls, income, rents, issues and profits thereof to manage, operate, collect, receive, use and enjoy in any manner not inconsistent with the provisions hereof.

Sec. 2. If, when the bonds hereby secured shall have become due and payable, the Railway Company shall well and

truly pay, or cause to be paid, the whole amount of the principal moneys and interest due upon all of the bonds and coupons for interest thereon hereby secured, then outstanding, or shall provide for such payment by depositing with the Trustee hereunder for the payment of such bonds and coupons the entire amount due thereon for principal and interest, and shall also pay, or cause to be paid, all other sums payable hereunder by the Railway Company, and shall well and truly perform all the things herein required to be performed by it, according to the true intent and meaning of this indenture, then and in that case all property, rights and interest hereby conveyed or pledged shall revert to the Railway Company, and the estate, right, title and interest of the Trustee shall thereupon cease, determine and become void, and in such case, the Trustee on demand of the Railway Company, and at its cost and expense, shall enter satisfaction of this indenture upon the records; but otherwise, the same shall be, continue and remain in full force and virtue.

ARTICLE NINE.

SEC. 1. All the covenants, stipulations, promises and agreements in this indenture contained, by or in behalf of the Railway Company, shall bind its successors and assigns, whether so expressed or not.

SEC. 2. Nothing contained in this indenture, or in any bond hereby secured, shall prevent any lawful consolidation or merger of the Railway Company with any other corporation, or any conveyance or transfer, subject to the continuing lien of this indenture and to all the provisions thereof, of all the mortgaged and pledged premises as an entirety to a railroad corporation at that time existing under and by virtue of the laws of the United States or of any State thereof, and lawfully entitled to acquire the same; provided, however, that such consolidation, merger or sale shall not impair the lien and

security of this indenture, or any of the rights or powers of the Trustee, or of the bondholders hereunder, and that, upon any such consolidation, merger or sale, the due and punctual payment of the principal and interest of all of said bonds according to their tenor, and the due and punctual performance and observance of all the covenants and conditions of this indenture, shall be assumed by the corporation formed by such consolidation or merger or purchasing as aforesaid.

SEC. 3. In case the Railway Company, pursuant to Section 2 of this Article, shall be consolidated or merged with any other corporation, or shall sell, convey and transfer, subject to this indenture, all the mortgaged and pledged premises as an entirety as aforesaid, the successor corporation formed by such consolidation or into which the Railway Company shall have been merged, or which shall have purchased and received a conveyance and transfer as aforesaid, upon executing and causing to be recorded an indenture with the Trustee, satisfactory to the Trustee, whereby such successor corporation shall assume the due and punctual payment of the principal and interest of said bonds and the performance of all the covenants and conditions of this indenture, shall succeed to, and be substituted for, the Railway Company, party of the first part hereto, with the same effect as if it had been named herein as such party of the first part, and such successor corporation thereupon may cause to be signed and may issue, either in its own name or in the name of the Philadelphia and Reading Railway Company, any or all of such bonds which shall not theretofore have been signed by the Philadelphia and Reading Railway Company and delivered to the Trustee, and, upon the order of said successor corporation and subject to all the terms, conditions and restrictions herein prescribed, the Trustee shall certify and deliver any of such bond which shall have been previously signed and delivered by the officers of the Railway Company to the Trustee for certification, and any of such bonds which such successor cor-

poration shall thereafter cause to be signed and delivered to the Trustee for that purpose. All the bonds so issued shall in all respects have the same legal rank and security as the bonds theretofore or thereafter issued in accordance with the terms of this indenture, as though all of said bonds had been issued at the date of the execution hereof.

SEC. 4. For every purpose of this indenture, including the execution, issue and use of any and all bonds hereby secured, the terms "Railway Company" and "Philadelphia and Reading Railway Company" include and mean not only the party of the first part hereto, but also any such successor corporation, formed under the laws of the United States or of any State or States. Every such successor railroad corporation shall possess and from time to time may exercise each and every right and power hereunder of the Philadelphia and Reading Railway Company, in its name or otherwise.

SEC. 5. Any act or proceeding by any term of this indenture or of any bond or resolution herein recited, required or provided to be done or performed by any board or officer of the Railway Company, shall and may, in event of any change in its existence, be done and permitted with like force and effect by the like board or officer of any railroad corporation that shall at the time be lawful sole successor of the Railway Company.

SEC. 6. Nevertheless, before the exercise of the powers conferred by this article, the Railway Company, by instrument in writing executed by authority of two-thirds of its board of directors and delivered to the Trustee may surrender any of the powers reserved to the Railway Company or to such successor corporation under this Article and thereupon such power so surrendered shall terminate.

SEC. 7. For every purpose of this indenture, and for all rights thereunder, including the issue, delivery and reception of bonds hereunder, the term Reading Company shall be taken

to mean either the Pennsylvania corporation heretofore existing under the name of the National Company, or any successor or consolidated or other corporation which, with the approval of the Trustee and the Railway Company, shall be designated in lieu of such existing company.

ARTICLE TEN.

The Railway Company may deem and treat the bearer of any bond hereby secured, which shall not at the time be registered as hereinbefore authorized, and the bearer of any coupon for interest on any such bond, whether or not such bond shall be registered, as the absolute owner of such bond or coupon, as the case may be, for the purpose of receiving payment thereof and for all other purposes, and the Railway Company shall not be affected by any notice to the contrary.

ARTICLE ELEVEN.

Central Trust Company of New York, Trustee party hereto of the second part, hereby accepts the trusts in this indenture declared and provided, and agrees to perform the same upon the terms and conditions hereinbefore set forth.

The words "the Trustee," or "said Trustee" or any other equivalent term, as used in this indenture (except when otherwise clearly indicated), shall be held and construed to mean the Trustee, or Trustees, for the time being, whether original or successor, and the words "Trustee," "bond," "bondholder" and "holder" shall include the plural as well as the singular number, and the term "majority" shall signify "majority in amount," whether or not so expressed.

In order to facilitate the record of this indenture, the same may be simultaneously executed in several counterparts, each of which so executed shall be deemed to be an original; and such counterparts shall together constitute but one and the same instrument.

In witness whereof, the Philadelphia and Reading Railway Company, the party hereto of the first part, has caused this indenture to be signed and acknowledged or proved by its President, and its corporate seal to be hereunto affixed, and the same to be attested by the signature of its Secretary; and Central Trust Company of New York, the party of the second part, has caused its corporate seal to be hereunto affixed and attested by its Assistant Secretary, and these presents to be signed and acknowledged or proved by its 2d Vice-President the day and year first above written.

PHILADELPHIA AND READING RAILWAY COMPANY,

By

[SEAL.] J. S. HARRIS,
President.

Attest:
W. R. TAYLOR,
Secretary.

CENTRAL TRUST COMPANY OF NEW YORK,

By

[SEAL.] E. FRANCIS HYDE,
Second Vice-President.

Attest:
B. G. MITCHELL,
Asst. Secretary.

Signed, sealed and delivered on behalf of the Railway Company in the presence of

W. R. TAYLOR.
W. G. BROWN.

Signed, sealed and delivered on behalf of the Trust Company in the presence of

M. FERGUSON.
WM. H. BRUDER.

COMMONWEALTH OF PENNSYLVANIA, }
City of Philadelphia, } ss.:

On the seventh day of December, 1896, before me, the subscriber, a Notary Public for the Commonwealth of Pennsylvania, residing in the City of Philadelphia, personally appeared William R. Taylor, Secretary of the above-named Philadelphia and Reading Railway Company (he being one of the subscribing witnesses to the sealing and delivery of the above indenture), who, being by me duly sworn according to law, did depose and say: That he was present at the execution of the said indenture, and did see Joseph S. Harris, the President of said corporation, affix the common or corporate seal of the said Philadelphia and Reading Railway Company thereto, and subscribe his name as President in attestation thereof; that the seal so affixed is the common or corporate seal of the said corporation, and that the said seal was so affixed, and the said indenture was duly sealed and delivered by the said President, as the act and deed of the said corporation, for the uses and purposes therein mentioned, in pursuance of a resolution of the Board of Directors duly passed at a meeting thereof, held the 18th day of November, A. D. 1896; that he saw W. G. Brown, the said subscribing witness, sign his name to the said indenture; and that the name of this deponent, subscribed to said indenture as Secretary of the said Company, in attestation of the due execution and delivery of the said indenture, and also subscribed as a witness to the sealing and delivery thereof, are of his (this deponent's) own handwriting.

W. R. TAYLOR.

Sworn and subscribed before me.
Witness my hand and notarial
seal the day and year aforesaid.

C. K. KLINK,
Notary Public. [SEAL.]

STATE OF NEW YORK,
City and County of New York, } ss.:

On the ninth day of December, in the year 1896, before me personally came E. Francis Hyde, to me known, and who, being by me duly sworn, did depose and say that he resided in the City of New York; that he was the 2d Vice-President of Central Trust Company of New York, the corporation described in and which executed the foregoing instrument; that he knew the seal of said corporation; that the seal affixed to such instrument was such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that he signed his name thereto by like authority.

WM. H. BRUDER,
Notary Public (201),
New York County.

[SEAL]

STATE OF NEW YORK,
CITY AND COUNTY OF NEW YORK, } ss.:

I, HENRY D. PURROY, Clerk of the City and County of New York, and also Clerk of the Supreme Court for the said City and County, the same being a Court of Record, Do Hereby Certify That Wm. H. Bruder, whose name is subscribed to the Certificate of the proof or acknowledgment of the annexed instrument and thereon written was, at the time of taking such proof or acknowledgment, a Notary Public in and for the City and County of New York, dwelling in the said City, commissioned and sworn, and duly authorized to take the same. And further, that I am well acquainted with the handwriting of such Notary, and verily believe that the signature to the said certificate of proof or acknowledgment is genuine.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of the said Court and County the 9th day of December, 1896.

HENRY D. PURROY,
Clerk.

[SEAL.]

Government's counsel offer in evidence, from **pamphlet containing the proceedings on foreclosure of the Philadelphia and Reading Railroad Company** *et al.*, in 1895, pages 204-216 inclusive, being the residue of the same document introduced in evidence by the defendants, beginning at page 1938 of the stenographic minutes of the defendants' evidence (printed page 1095), as follows:—

"AGREEMENT

READING COMPANY

with

CHARLES H. COSTER AND FRANCIS LYNDE STETSON, PURCHASERS, AND J. P. MORGAN & CO., MANAGERS.

THIS AGREEMENT, Made this twenty-third day of December, 1896, by and between Reading Company, a corporation organized and existing under the laws of the State of Pennsylvania (hereinafter called the Company), party of the first part, and Charles H. Coster and Francis Lynde Stetson (hereinafter called the Purchasers), parties of the second part, and J. P. Morgan & Co., a copartnership, of the city of New York (hereinafter called the Managers), parties of the third part, Witnesseth as follows:—

WHEREAS, The parties of the second part were the purchasers of the property of the Philadelphia and Reading Railroad Company and the Philadelphia and Reading Coal and Iron Company, at the foreclosure sale thereof on the twenty-third day of September, 1896, under and in pursuance of a judgment and decree of the Circuit Court of the United States for the Eastern District of Pennsylvania, and under certain deeds of conveyance thereof made, executed and delivered October 23d, 1896, one by The Pennsylvania Company for Insurances on Lives and Granting Annuities, as trustee under a certain mortgage or deed of trust of the Philadelphia and Reading Railroad Company and the Philadelphia and Reading

Coal and Iron Company, called the General Mortgage, bearing date the third day of January, 1888, and the other by said the Philadelphia and Reading Coal and Iron Company;

And Whereas, The parties of the second part in association with J. P. Morgan & Co. have this day tendered and delivered to the Company, the party of the first part, several certain deeds of conveyance of property formerly of the Philadelphia and Reading Railroad Company, and also transfers of divers other assets, stocks and bonds, which deeds and transfers were delivered to and accepted by the party of the first part upon the express condition and agreement that it would make and perform the covenants and conditions of this agreement;

And Whereas, Such purchases and such conveyances were made under and in pursuance of the request of the parties of the second part, hereto as Managers under a certain plan and agreement for the reorganization of the Philadelphia and Reading Railroad Company and the Philadelphia and Reading Coal and Iron Company, dated December 14th, 1895, and in intended compliance with and promotion of the provisions of said plan and agreement;

Now, Therefore, in consideration of the premises and of the mutual promises and agreements hereinafter contained, the parties hereto mutually do hereby promise and agree as follows, to wit:—

First.—When and as requested by the Purchasers or by the Managers, or by their assigns, either individual or corporate, by them from time to time designated:—

1. The Company will issue and deliver to them, or upon their orders, certificates for 2,799,000 shares of its fully paid and non-assessable stock of the character described in the said plan of reorganization, as follows, viz:—

(*a*) 560,000 shares of its first preferred stock;
(*b*) 840,000 shares of its second preferred stock;
(*c*) 1,399,000 shares of its common stock.

2. The Company, either alone or jointly with The Philadelphia and Reading Coal and Iron Company as co-obligor, will make, execute and deliver bonds for the aggregate principal sum of one hundred and thirty-five million dollars, bearing interest at the rate of four per cent. per annum, payable semi-annually, both principal and interest being payable in gold coin of the United States of the present standard of weight and fineness, and the principal payable on the first day of January, 1997; and the Company will make, execute and deliver a mortgage or deed of trust, granting, conveying and pledging, as security for the payment of all such bonds, all its assets of every name or nature, now owned or hereafter acquired, and all its franchises, it being intended to include under such mortgage (either directly or by collateral trust), substantially all the property formerly of The Philadelphia and Reading Railroad Company (subject to such deductions therefrom or changes therein as the Purchasers or their assigns, for business reasons, may decide not to include under such mortgage), and also the capital stock of the Philadelphia and Reading Railway Company and of the said The Philadelphia and Reading Coal and Iron Company;

Provided, That (1) not more than fifty million four hundred thousand dollars of such bonds shall be presently issued for the general purposes of the Purchasers or of their assigns; that (2) of the remainder of such authorized issue about sixty-four million six hundred and twenty-nine thousand dollars shall be used to acquire various outstanding bonds of The Philadelphia and Reading Railroad Company (including the collateral sinking-fund loan of the said railroad company of 1892, under which the principal sum of one million seven hundred and seventy-four thousand dollars is now outstanding and unpaid, which loan The Philadelphia and Reading Coal

and Iron Company has assumed and agreed to pay), and the outstanding bonds of The Philadelphia and Reading Coal and Iron Company, approximately amounting to the principal sum of twelve million five hundred thousand dollars; that (3) of the remainder of said authorized issue, twenty million dollars shall be reserved and used for the acquisition of property ultimately to be devoted to the security of such bonds.

Second.—In case the property or assets of the Company shall be used or taken for the payment or discharge of any obligation of any kind under the said bonds or mortgages, the Company, to the extent of such payment or appropriation of its property in excess of one-half of the aggregate sum payable under such bonds, shall have a claim for the amount of such excess against the party joining with it in the execution of said bonds and the mortgage securing the same.

Third.—In every way and at all times the Company, at its own expense and risk, will indemnify and hold harmless the said Coster and Stetson, their heirs, executors and administrators, against and from every claim, costs and charges of every name or nature arising out of or connected with their acquisition, tenure or transfer of any of the property by them transferred to the Philadelphia and Reading Railway Company, The Philadelphia and Reading Coal and Iron Company or the Reading Company.

Fourth.—The Company from time to time hereafter will make and perform any agreements which the Managers may require, and will adopt and will perform any and all agreements which may have been made or which may be made by the Managers with respect to the issue of the securities of the Company, as provided in said plan and agreement of December 14th, 1895, above mentioned. The Company, upon demand of the Managers, will assume and satisfy all obligations and liabilities of the Managers in connection with such sales and pur-

chases of property, or with the reorganization under said plan and agreement, or any modification thereof, or with the acquisition of stocks or bonds necessary or desirable to acquire in connection with, or as a part of, such reorganization.

Fifth.—The Company, upon request of the Managers, will at all times and in all ways do and perform any and all acts, and execute and deliver any and all writings, suitable to carry fully into effect the said plan and agreement according to the terms and intention thereof, subject to all such modifications as from time to time may be made in pursuance of the terms thereof.

Sixth.—The Company from time to time, on demand of the Managers, will pay to the order of the Managers all such sums as they or any of them shall have incurred, or may hereafter incur, for expenses in and about the performance of such agreement and plan of reorganization, and will indemnify and hold harmless the Managers, and each of them, from and against all costs, expenses, liabilities and charges whatsoever incurred, or which may be incurred, by the Managers, or the members or any of them, in carrying out such plan and agreement or reorganization, or by reason of any acts done or suffered to be done thereunder.

Seventh.—The Managers from time to time, so far as lawful, will vest or cause to be vested in the Company the ownership of the stocks, bonds or other property representing the system formerly of The Philadelphia and Reading Railroad Company so far as the same shall have been acquired by the Managers in the performance of said plan and agreement of reorganization, and also any balance of cash received by the Managers for the purpose of carrying out such plan and agreement, except so far as such stocks, bonds and other property may be converted or otherwise dealt with, and said cash to be expended, by the Managers in effecting any of the purposes of said plan and agreement; it being the intention of this agreement and of the parties hereto that

the Company, so far as lawful, shall become and be the suitable agency contemplated in the said plan and agreement for the ownership or control of the properties acquired and to be acquired pursuant to said plan and agreement.

Eighth.—From time to time the Company, the Purchasers and the Managers will, in all particulars, cooperate with each other, and will assist each other in carrying this agreement into effect, and in accomplishing the purposes of the said plan and agreement of reorganization as now existing, or as from time to time modified, in pursuance of the provisions thereof; and if for any reason it shall, at any time, become impracticable for the Company to execute or to perform any part or provision of such plan or agreement of reorganization, then and in that case the Managers may select any other suitable agency or method for such performance, and upon the happening of any such contingency, the securities or property received or created by the Managers under such modification shall be accepted by the Company, in lieu and in substitution of any existing securities or property embraced within the purview of this agreement, at the value of the property represented by such new securities.

Ninth.—This agreement is made upon the condition that the Managers reserve unimpaired all rights and powers under said plan and agreement; that the Managers may construe said plan, and that their construction thereof shall be conclusive, and that they may supply any defect or omission. It is further agreed that the Managers, from time to time, in their discretion, may alter or modify said plan or agreement within the limits therein authorized, and that in case of any such alteration or modification this agreement shall apply to the altered or modified plan and agreement in all respects as though the same were in force at the present time.

Tenth.—This agreement, and each and every provision thereof, may at any and all times be modified, extended or enlarged by the agreement of the Managers,

on the one side, and the president or first vice-president of the Company on the other.

In Witness Whereof, The Company, by the authority of its board of directors, each and every of its stockholders consenting thereto, has caused these presents to be executed and delivered by its president, under its corporate seal, attested by its secretary, and the Purchasers and the Managers respectively have hereunto set their hands and seals the day and year first above mentioned.

READING COMPANY,
By
J. S. HARRIS,
President.

[L. S.]

Attest:—
W. R. TAYLOR,
Secretary.

C. H. COSTER, [L. S.]
FRANCIS LYNDE STETSON. [L. S.]
Purchasers.

J. P. MORGAN & CO., [L. S.]
Managers.

In presence of:

The undersigned, being all of the stockholders of the Reading Company, hereby assent to and approve of the foregoing agreement.

C. H. COSTER,
FRANCIS LYNDE STETSON.

C. H. COSTER,
FRANCIS LYNDE STETSON.

J. S. HARRIS,
GEO. F. BAER,
JNO. LOWBER WELSH,
THOMAS McKEAN,
GEO. C. THOMAS,
A. J. ANTELO,
A. FOSTER.

PETITION OF RECEIVERS TO PUBLISH NOTICE REQUIRING HOLDERS OF ANY CLAIMS AGAINST THE COMPANIES OR THE RECEIVERS TO PRESENT OR FILE THE SAME WITHIN SIX MONTHS. ORDER OF COURT GRANTING THE SAME.

IN THE CIRCUIT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF PENNSYLVANIA.

The Pennsylvania Company for Insurances on Lives and Granting Annuities,

vs.

The Philadelphia and Reading Railroad Company, The Philadelphia and Reading Coal and Iron Company, and Joseph S. Harris, Edward M. Paxson, and John Lowber Welsh, Receivers.

APRIL SESSIONS, 1895.

NO. 9.

IN EQUITY.

TO THE HONORABLE THE JUDGES OF THE SAID COURT:

The petition of Joseph S. Harris, Edward M. Paxson and John Lowber Welsh, Receivers, respectfully represents:—

That in any by the final decree of May 1st, 1896, in the above-entitled cause, providing for a sale of the properties, premises and franchises of the corporations defendant, your petitioners were directed to file, within two weeks prior to the time of sale, with the clerk of the Court:—

1. "A statement showing as definitely as practicable all indebtedness, obligations and liabilities contracted or incurred by them then remaining unpaid."

2. "A statement showing, as definitely as practicable all indebtedness or liabilities contracted or incurred by

said defendants, The Philadelphia and Reading Railroad Company and The Philadelphia and Reading Coal and Iron Company, or either of them, in the operation of the mortgaged property prior to the appointment of the Receivers, and which, so far as they are informed, are claimed to be prior in lien or superior in equity to said General Mortgage."

By the terms of the said decree it was further provided that "Any such claims for indebtedness or liabilities which shall not have been included in such statement of the Receivers, or which shall not have been presented in writing to the Receivers, or filed with the clerk of this Court prior to the time of delivery of possession of such property, shall be presented for allowance and filed within six months after the first publication by the Receivers of a notice to the holders of such claims to present the same for allowance. The Receivers shall publish such notice at least once a week for a period of six weeks in one or more newspapers published in each of the cities of Philadelphia, Pa.; New York, N. Y.; and Reading, Pa., on the request of any purchaser or purchasers of the railroad property after delivery of possession of such property to such purchaser, and any such claim which shall not be so presented or filed within the period of six months after the first publication of such notice shall not be enforcible against said Receivers nor against any property sold, nor against any purchaser or purchasers, his or their successors or assigns."

And your petitioners further show that the said sale having been duly made, was confirmed by the decree of this Honorable Court upon the twenty-third day of September, 1896, and that in and by said decree it was provided as follows:—

"Subject, however, and upon the express condition, that to the extent that the assets, or the proceeds of assets, in the Receivers' hands shall be insufficient, such purchasers or their assigns shall pay, satisfy and discharge (*a*) any unpaid compensation which shall be allowed by

the Court to the Receivers; (*b*) any indebtedness, obligation or liabilities which shall have been duly contracted or incurred by the Receivers before delivery of possession of the property sold; and (*c*) also any unpaid indebtedness or liability contracted or incurred by the defendants, The Philadelphia and Reading Railroad Company or The Philadelphia and Reading Coal and Iron Company in the operation of the mortgaged property prior to the appointment of the Receivers, and which is prior in lien or superior in equity to said General Mortgage, except such as shall be paid or satisfied out of the income of the property in the hands of the Receivers, or out of the assets or out of the proceeds of assets in their hands, upon the Court adjudging the same to be prior in lien or superior in equity to said mortgage and directing payment thereof, all payments for any such purpose made by the purchasers in advance of the final accounting and discharge of the Receivers to be treated as advances and subject to final adjustment upon such accounting: *Provided, however*, that upon publication by the Special Master, when ordered by the Court, as provided in said decree, of a notice requiring holders of any claims to present the same for allowance, any such claims which shall not be so presented or filed within the period of six months after the first publication of such notice shall not be enforcible against the property sold or against the purchaser, its successors or assigns. And subject also to the payment by said grantees, their successors or assigns, of such sums in cash as may be required in order to pay all costs and expenses of the sale, the compensation of the trustee, and all charges, compensations, allowances and disbursements payable out of the purchase price bid for the premises as the same shall be fixed and allowed by the Court."

And your petitioners further show that the statements called for by the final decree of May 1st, 1896, were duly filed by them with the clerk of this Court, and that after the entry of the decree of confirmation and full compliance with the terms of purchase, to wit, upon the

thirtieth day of November, 1896, the possession of the property in their possession was transferred and delivered by your petitioners to the purchasers, and they have now requested your petitioners to publish a notice to holders of claims to present the same for allowance, but that in view of the fact that by the terms of the order of confirmation such publication is to be made by the Special Master, your petitioners have thought it advisable to obtain from your Honorable Court a confirmation and approval of the proposed form of notice.

And they therefore pray that the Special Master and themselves may be authorized and directed to unite in the publication of the form of notice hereto attached, marked "Exhibit A," and that such notice may be decreed to be in compliance with and a substantial performance of the previous orders of the Court upon this subject.

And your petitioners will ever pray.

JOS. S. HARRIS,
EDWARD M. PAXSON,
JNO. LOWBER WELSH,
Receivers.

THOMAS HART, JR.,
SAM'L DICKSON,
For Receivers.

EXHIBIT A.

Notice to Present Claims.

The Pennsylvania Company for Insurances on Lives and Granting Annuities,

vs.

The Philadelphia and Reading Railroad Company, The Philadelphia and Reading Coal and Iron Company, and Joseph S. Harris, Edward M. Paxson, and John Lowber Welsh, Receivers.

In the Circuit Court of the United States for the Eastern District of Pennsylvania.

April Sessions, 1895.

No. 9.

In Equity.

Under and pursuant to the decree of foreclosure and sale entered herein by the United States Circuit Court for the Eastern District of Pennsylvania, on the first day of May, 1896, and the decree of the said Court of September 23d, 1896, confirming the sale thereunder of the railroad property and franchises covered by the General Mortgage dated January 3d, 1888, of The Philadelphia and Reading Railroad Company and The Philadelphia and Reading Coal and Iron Company and the order of said Court made January 11th, 1897.

Notice is hereby given, That the holders of any claims against The Philadelphia and Reading Railroad Company or The Philadelphia and Reading Coal and Iron Company or against the Receivers, which the purchasers of the railroads, properties and franchises described in the decree of May 1st, 1896, may be required to pay as part of the consideration and in addition to the sum bid for such railroads, properties and franchises, to present

such claims, in writing, to the undersigned Receivers for allowance or payment at their office, Room No. 423, Reading Terminal Building, Twelfth and Market Streets, Philadelphia or to the undersigned Special Master at his office No. 606 Chestnut Street, in the city of Philadelphia, and that any such claims which shall not be so presented or filed within a period of six months after the fifteenth day of January, 1897, shall not be enforcible against the said Receivers or against the properties sold under said decrees or against the purchaser of such properties, its successors or assigns.

JOSEPH S. HARRIS,
EDWARD M. PAXSON,
JOHN LOWBER WELSH,
Receivers of the Philadelphia and Reading Railroad Company and The Philadelphia and Reading Coal and Iron Company.

THOMAS HART, JR.,
SAMUEL DICKSON,
Counsel.

GEORGE L. CRAWFORD,
Special Master.

PHILADELPHIA, January 11th, 1897.

And now; this eleventh day of January, 1897, the prayer of the petition this day filed by the Receivers is granted, and the proposed form of notice to present claims approved, and the said Receivers and the Special Master are directed to cause the same to be advertised in the manner, and for the time prescribed by the decree of foreclosure and sale of May 1st, 1896.

GEO. M. DALLAS,
Cir. Judge.

RECEIVERS' NOTICE TO PRESENT CLAIMS.

(Copies of proof of publication.)

STATE OF PENNSYLVANIA, }
COUNTY OF PHILADELPHIA, } *ss:*

H. K. Hottenstein being duly sworn deposes and says that he is a clerk in the office of the PUBLIC LEDGER, a morning newspaper published daily (except Sundays) in the City of Philadelphia and that the advertisement of which a copy is hereunto attached was inserted in the said newspaper on the following dates, to wit: January 15, 22, 29, February 5, 12, 19 and 26, 1897.

H. K. HOTTENSTEIN.

Sworn and subscribed to before me this 21st day of April A. D. 1900.

CHAS. F. MYERS,
[SEAL] *Notary Public.*

STATE OF NEW YORK, }
CITY AND COUNTY OF NEW YORK, } *ss:*

James W. Kellett being duly sworn deposes and says that he is a clerk in the office of the NEW YORK HERALD, a paper printed and published in the City and County of New York, and that the advertisement of The Pennsylvania Company for Insurances on Lives and Granting Annuities, as per annexed copy, was published in the said NEW YORK HERALD seven times, to wit: January 15, 22, 29, February 5, 12, 19, 26, 1897.

JAMES W. KELLETT.

Sworn to before me this 25th day of April, 1900.

DULANY HOWLAND,
[SEAL] *Notary Public, City and County of New York.*

PENNSYLVANIA, }
BERKS COUNTY, } ss:

Personally appeared before me Wellington G. Woods, Business Advertising Manager of the READING TELEGRAM, that the attached advertisement appeared in said paper (on January 15, 22, 29, February 5, 12, 19 and 26, 1897).

W. G. WOODS.

Sworn and subscribed before me this 20th day of April, 1900.

W. M. ZECHMAN,
Notary Public.

[SEAL]

The following letter was sent by Mr. Gordon to Mr. Reynolds:—

"U. S. *vs.* READING CO. *et al.*

May 5, 1914.

Jackson E. Reynolds, Esq.,
Counsel Central Railroad Company of New Jersey,
143 Liberty St., N. Y. City.

DEAR MR. REYNOLDS:—Will you furnish a statement to be inserted in the record in the above cause, telling whether the table furnished by you and reprinted at page 364 of the printed record, includes in the total anthracite tonnage for the years stated the anthracite tonnage sold by the Lehigh & Wilkes-Barre Coal Co. to the Central Railroad Company of New Jersey for company supply coal.

Very truly yours,

THURLOW M. GORDON."

In reply, Mr. Reynolds states that he will send to the Examiner the answer of the Coal Traffic Accountant to the above letter, with the understanding that it shall form a part of the Government's record.

The following was furnished to the Examiner:—

"M. A. Koons, Coal Traffic Accountant of the Central Railroad Company of New Jersey, at the request of Counsel for the Government, submitted the following statement in connection with the 'Statement showing anthracite coal tonnage shipped to points on and over the Central Railroad of New Jersey System, furnished by Philadelphia & Reading Railroad, Lehigh and Wilkes-Barre Coal Company, the Lehigh Coal & Navigation Company, and all other shippers for five years ending June 30, 1913,' which statement appears at page 364 of the printed record. 'The figures in this statement include the anthracite tonnage sold by the Lehigh and Wilkes-Barre Coal Company to the Central Railroad Company of New Jersey for Company supply coal.'"

Jackson E. Reynolds, having been duly sworn, was examined as follows:—

By MR. GORDON:

Q. I show you, at page 118 of the printed record (Stenographic Minutes, page 214), Government Exhibit No. 17, being a statement of lateral allowances paid by the Central Railroad Company of New Jersey to the Lehigh Coal and Navigation Company during the period from July, 1910, to December, 1912. It was the custom of the Central Railroad Company of New Jersey during that period to pay lateral allowances to the Lehigh Coal and Navigation Company, was it not? A. It was.

Q. What was the service, if any, rendered by the Lehigh Coal and Navigation Company, for which those allowances were paid? A. These laterals were paid, and are continued to be paid, under the mutual understanding of the tenth covenant of the lease of the Lehigh and Susquehanna Railroad from the Lehigh Coal and Navigation Company to the Central Railroad Company of New Jersey. A part of the consideration for the payment is the enjoyment of the lease, and it is true also that, in further part consideration of the payment of the laterals, the Lehigh Coal and Navigation Company does perform, on the aggregate tonnage

handled per annum, a very large and vital transportation service, in taking cars from the junction point of the Central Railroad Company of New Jersey, with the rails owned by the Lehigh Coal and Navigation Company, and retained by them at the time they made their lease, then known as the Panther Creek Railroad, now known as the Lehigh and New England Railroad—taking cars from that junction point, which is at the north end of the Nesquehoning tunnel, and distributing them through the Panther Creek region, serving nine collieries of the Lehigh Coal and Navigation Company in that region, loading and switching those cars, and returning the loaded cars to the junction point and the weigh scales at Hauto, at the north end of the Nesquehoning tunnel. That, as you will see by scale on the map, could be a distance of approximately seven miles. The average service could hardly be less than three and a half miles in each direction, the empty movement three and a half miles and the loaded movement three and a half miles. It is relatively the same kind of service which was testified to by Mr. Davies, when called by the Government in this case, and for which his testimony shows he desired the Reading to give his company twenty-five cents allowance out of the rate to Harrisburg; and, as nearly as it could be possible to get it, the service in the case is the same as the service in the other, as a general proposition.

Q. These allowances were all given in pursuance of the tenth clause of the lease? A. Yes.

Q. Were services performed in connection with all shipments, or in connection with part of the shipments? A. The Lehigh Coal and Navigation Company has ten collieries, operated under the Lehigh Coal and Navigation Company name. They also have a relationship, of course, with the Alliance Company's collieries. The service is performed at all of their collieries, in the manner I have described, with the exception of the Nesquehoning colliery. The Nesquehoning colliery is accessible directly from the Central Railroad of New Jersey, and, my recollection is, was always accessible also from the Panther Creek Railroad. To what extent the Lehigh and New England Rail-

road operates into the Nesquehoning I am not able to state; I do not know.

Q. The lateral allowances are paid on shipments from this one colliery where you state no services are performed? A. They are.

Q. Does the Lehigh Coal and Navigation Company directly operate the cars and trains of coal itself? A. At the present time?

Q. At the present time. A. My knowledge of that is limited to this, and I cannot speak very definitely about that; the Lehigh Coal and Navigation Company has made some effort—just how earnest it was, I do not know—to have the Lehigh and New England perform that service, or perform the service of taking the empties and returning the loads in through that region on tracks which the Lehigh and New England acquired from the Lehigh Coal and Navigation Company. The matter has been before me as legal adviser to the Jersey Central, and I have declined to technically deal with the Lehigh and New England in the matter, and have said that we must continue to deal with our lessor; and that, if they want to employ the Lehigh and New England to do their work, I have no interest in it, but that we must look to our lessor and will not deal with the Lehigh and New England Railroad on any of that situation. Now what they have done about that, I am utterly unaware. I do not know, practically, how they are handling it, whether they are arranging with the Lehigh and New England for the necessary trackage to have the Lehigh Coal and Navigation Company engine and crew switch those cars, or whether they are doing it through a yardman, the Lehigh and New England Railroad.

Q. Then I understand you to say that, either directly themselves or indirectly through an agent, the Lehigh Coal and Navigation Company does perform services in connection with shipments from nine collieries? A. That is correct, yes, sir.

Q. And from one colliery it performs no services whatever? A. That is also correct.

Q. But it receives lateral allowances for shipments from all those collieries, including the one from which it performs no services? A. It receives lateral allowances on every ton of coal which it ships, no matter whether it comes from the nine collieries where the service is required to reach them, or from the one colliery, the Nesquehoning, where no service is required. I cannot say that these lateral allowances are entirely in return for the service, because it is our belief and understanding, on which we have always acted, that, independently of the service, the tenth covenant requires us to make the lateral allowance.

Q. In other words, do you give a reduction from the rate, as a part of your rental, under the lease? A. I cannot explain that lateral situation any better than Mr. Drinker did, in the Government's case in chief, that the rate is divided into two parts, like any pro rate. The Lehigh Coal and Navigation Company gets a part of that rate from all ten collieries, and the Central Railroad Company of New Jersey gets a part of it. Now the explanation which Mr. Drinker gave of the early history of the making of those rates will be found in the Government's case in chief, and I cannot make any other or different explanation. This is simply a method of perpetuating the Penn Haven basis of rates, which is referred to in the tenth clause, giving the lessor company, which owned the tracks of the Nesquehoning Railroad, that part of the rate.

Q. But I understood you to say that a part of the consideration for these lateral allowances was the lease of the Lehigh and Susquehanna Railroad? A. And branches, including the Nesquehoning Railroad; yes, that is the understanding that we have always acted upon in the matter of the laterals.

Q. And this tenth clause of the lease is not published in the published tariffs? A. In words, you mean?

Q. In words. A. No, sir, it is not.

Q. And this payment of the lateral allowance is due—I think I quote you correctly—to a mutual understanding be-

tween the parties, but not to anything printed in the published tariffs, from which outsiders could tell, in cents, what lateral allowance was being paid? A. The only thing that appears in the tariff—and I am somewhat handicapped from speaking from memory, but I think I can give its substance—is this: that every one of the anthracite coal tariffs of the Jersey Central Railroad, since August 31st, 1906, when the Hepburn Act became effective, contains a note somewhat of this character: "In accordance with the tenth clause of the lease of the Lehigh and Susquehanna Railroad to the Central Railroad Company of New Jersey, which lease will be found of record in the Prothonotary's office in Northampton County, Deed Book ——, page ——, Carbon County, Deeed Book ——, page ——," and so on through the counties through which the road runs, "a lateral allowance is paid out of the within named rates to the Lehigh Coal & Navigation Company." That, in substance and sense, is about all there is there, and, to answer your question affirmatively, there is not any clause or phrase which anywhere in that tariff states what that allowance is in pennies or cents or mills.

Q. Is that tenth clause of the lease filed with the Interstate Commerce Commission? A. I know the lease is in the files of the Interstate Commerce Commission.

Q. Is it filed in the Tariff Bureau? A. No, I think not. I really do not know about that. I do not believe it is.

Q. Is it a long clause? A. It is eight lines long.

Q. And it is not printed, even as a note, or in any manner, in the published tariffs? A. No, sir.

Q. Would the shipments from the tenth colliery of the Lehigh Coal and Navigation Company, in connection with which no services are rendered by the Lehigh Coal and Navigation Company, be approximately one-tenth of the entire shipments? A. I could not answer that.

Q. Would you know whether it was a substantial part? A. Of course, any shipments would be substantial if the colliery is running. How substantial, or what fraction, I could not undertake to say.

I will just add, by way of cross examination on

the record, that, when the Hepburn Bill was passed, I called a meeting of the Lehigh Coal and Navigation people and ourselves to consider this very question, of publishing this tariff, and the publication of a tariff showing those laterals was a rather cumbersome piece of business, as a matter enumerating the allowances to the different destinations, because the lateral varies. There are no shippers in the vicinity who could avail of the tariff condition in any way, as it stands, or as it could stand as a matter of physical geography, and, therefore, as a matter of honest good faith, it was concluded, at the end of that meeting, that all it was necessary for us to do was to be perfectly frank and open about the payment of a lateral, advertise that fact, and put anyone on notice who could be helped or harmed by such a payment, if he could get it, of the circumstances and conditions which led up to it, and put him in a position to avail of it if he thought he could. Nobody could be practically interested in the amount of such an allowance unless he could duplicate the relationship and bring a case under the discrimination clause of the Act, and there has never been the slightest secrecy about the payment of the allowance and the reason for the payment, and a complete reference to the history of it in the tariff. The only reason why the cents were not published was simply that it would make it too cumbersome, and nobody thought it was worth while, because nobody was interested.

By MR. GORDON:

Q. Was the reason that no other shipper of coal could avail himself of the opportunity to receive lateral allowances due to the fact that the occasion for giving the allowance was so defined that it could apply only to the Lehigh Coal and Navigation Company? A. I would not phrase it in that way. I think the reason did not lie in the definition, or the circumscribed language of the tariff at all; it lay deeper than that, that no shipper could duplicate the situation topographically, geographically, physically.

Q. There were other shippers in that general region sending anthracite coal to market, in competition with the Lehigh

Coal and Navigation Company? A. There is no shipper so close to tide as the Lehigh Coal and Navigation Company on the Jersey Central line. The only shippers that there are are up in the Hazleton region, or the Audenried district, a considerable distance above and beyond Hauto or Nesquehoning.

Q. The published tariffs for all shippers, from all portions of the anthracite coal regions, on the Jersey Central to tide are substantially the same, are they not? A. No. There is no differentiation in the rates on the Jersey Central, generally speaking, between the Wyoming region and the Lehigh region as a whole, if that is what you mean.

Q. Yes. A. We do have rates, however, from other lines to the Jersey Central in those regions, that are higher.

Q. You mean two-line hauls? A. Two-line hauls, yes.

Q. But every shipper on the Jersey Central has the same rate from any portion of the anthracite coal region to tide, any shipper, that is, who ships only over the Jersey Central? A. All shippers whose operations are local to the Jersey Central, whether in the Lehigh region or the Wyoming region, have the same rates on the same sizes of coal to the same destination—to tide, that is. I am not informed about New England rates.

Q. The Lehigh Coal and Navigation Company did receive this lateral allowance, which made its rate to tide less than the rates of other shippers local to the Jersey Central? A. That is a conclusion to be reached, if at all, by the Interstate Commerce Commission, or as a result of argument. It is not the conclusion that I would reach. I think their rate was exactly the same as everybody else's rate, and that they were giving, first, a service, and, second, a facility, going back to the old lease of the Lehigh and Susquehanna Railroad, which entitled them to the payments which we made them under that tenth clause, and that it did not have anything to do with the rate.

Q. But the actual money paid by the Lehigh Coal and Navigation Company to the Central Railroad Company of New Jersey for freight charges to tide, would be less per

ton than the actual money payments made by other shippers? A. No, it would not, in my judgment. In other words, you are just going around in a circle. You and I have got to argue that question, and it is a conclusion of law and fact that is not evidence, and my conclusion, if I state it, will be against you here.

Q. Let me put it this way: Did the Lehigh Coal and Navigation Company actually pay to the Central Railroad Company the full freight charges and then receive subsequently a repayment under the tenth clause of the lease? A. I think they did, but I do not think it makes any difference whether they did or not.

Q. I wanted to get the exact manner in which it was done. A. My understanding is that they did, but I do not think that is vital, whether they did or did not. In other words, you and I are working at cross purposes, when I am in the witness chair, because you are asking a question which I would object to as counsel, because it calls for a conclusion, and would not let the witness answer. It is something that must be settled by the Interstate Commerce Commission and by the Courts, and it may be settled in accordance with your view or in accordance with my view; but, until it is settled in accordance with your view, I shall entertain my view and state it as such as an answer on the record, so it is useless to pursue the matter further.

By Mr. Coudert:

Q. The last question asked, I take it, was a question of fact as to the method in which the payments were made? A. And I answered that question, as far as my knowledge of the fact permitted me, that I thought the fact was that they did pay the full rate and then subsequently settlements were made for the lateral allowances. I added that I did not think it material whether it was done in that way, or a settlement made on book balances. My understanding of the fact, however, is as I have given it.

Mr. Gordon stated that he desired a statement from the Central Railroad of New Jersey and from the Philadelphia and Reading Railway showing for calendar years:—

1. Total shipments of anthracite to New York tidewater via Central Railroad for year 1913.

2. Total shipments of anthracite via Philadelphia and Reading Railway to New York tidewater for 1913.

3. Total shipments of anthracite via Central Railroad of New Jersey to Philadelphia tidewater for year 1913.

4. Total shipments of anthracite via Philadelphia and Reading Railway to Philadelphia tidewater for the year 1913.

As to the Government's request, Mr. Reynolds replies that he first notes a technical objection, that the evidence requested is not proper rebuttal, and technically objects to producing it. On the other hand, as a matter of courtesy to Government counsel, he will make every effort to get the statements in time for the record. He expresses a doubt, however, whether he will be able to comply with the third request, merely because of the mechanical difficulties involved in summarizing interline accounting of that character.

The following information, in reply to the above requests, was later furnished to the Examiner:

Statement showing total shipments of anthracite coal via Philadelphia and Reading Railway to New York tidewater for the calendar year 1913:

New York tidewater, 1,583,618.14 tons.

Statement showing total shipments of anthracite coal via Philadelphia and Reading Railway to Philadelphia tidewater for the calendar year 1913:

Philadelphia tidewater, 1,906,437.14 tons.

Statement showing total shipments of anthracite coal via Central Railroad of New Jersey to New York tidewater for the calendar year 1913:

New York tidewater, 2,723,495 tons.

Statement showing total shipments of anthracite coal via Central Railroad of New Jersey to Philadelphia tidewater for the calendar year 1913:

Philadelphia tidewater, 2,064 tons.

Judge Beattie, counsel for the defendant, the Lehigh and Hudson River Railway Company, moves to strike from the record as against the said defendant, all testimony and exhibits not relating or referring to the said company.

Counsel for the Lehigh and Hudson River Railway Company moves to dismiss the petition, suit or proceeding herein, as against said company, upon the ground that no proof has been made, showing or tending to show any violation of law by said company under the allegations of the petition herein.

Counsel for the Lehigh and Hudson River Railway Company moves to dismiss the petition, suit or proceeding herein, as against said company, upon the ground that the ownership of any part of the capital stock of said defendant by any or all of the other defendants herein, is not a violation of any law, and does not justify or permit the maintenance of this suit or proceeding against the said defendant.

Counsel for the Lehigh and Hudson River Railway Company moves to dismiss the petition herein and the suit or proceeding thereon, upon the ground that the said defendant is not a proper or necessary party thereto, and that the allegations of the petition herein and relief sought therein are multifarious, as to the said defendant, and do not justify or permit any relief or decree in this suit in favor of the petitioner against the said defendant.

Testimony closed.